Three-year treatment outcomes with three brands of implants placed in the posterior maxilla and mandible of partially edentulous patients.

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University of Marmara, Department of Oral Surgery, Istanbul, Turkey.

SUMMARY: High Success Rates and High Patient Satisfaction with CAMLOG® Implants: 3 Year Treatment Outcomes

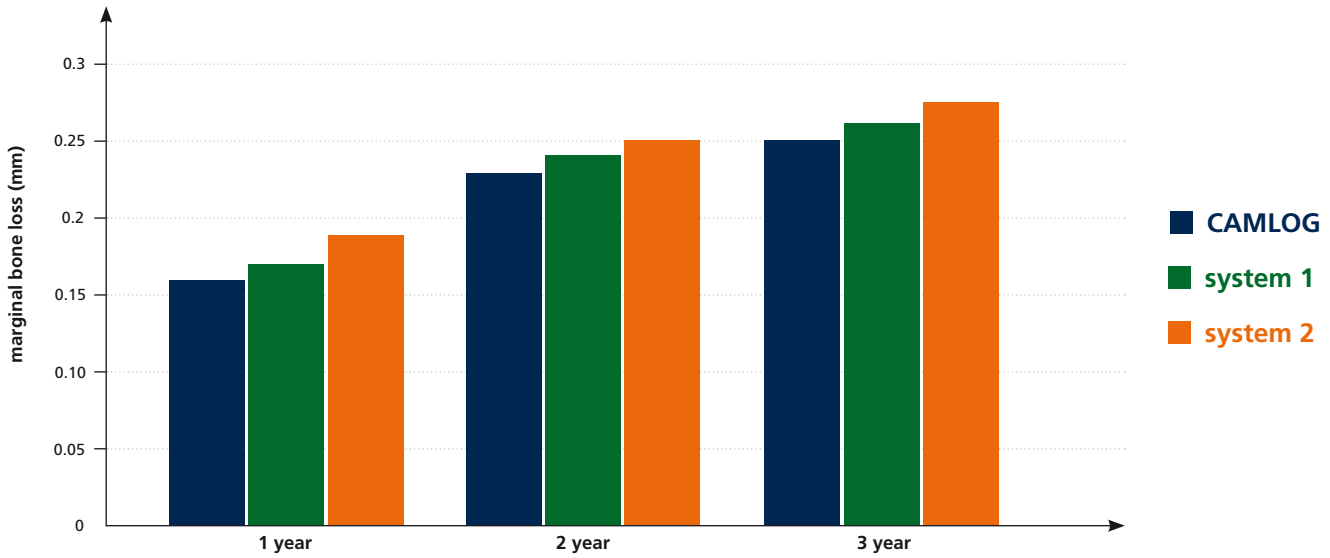
Aim

Evaluation of the clinical and radiographic outcomes with 3 brands of implants and implant-supported restorations in posterior maxillary and mandibulary sites of partially edentulous patients.

Results

High success rates were statistically equivalent among the 3 implant systems tested, as evaluated by measurement of marginal bone loss.

- All implants monitored met success criteria over the 3-year period for implant-related discomfort, pain, or infection
- All implants were surrounded by stable, healthy tissue
- All patients were highly satisfied with their restorations (esthetic and functional)



Marginal bone loss after 3 years of function was similar, regardless of the implant system (CAMLOG: 0.25 mm), and is comparable to other published values.

Conclusion

The 3 brands of implants evaluated exhibited similar positive treatment outcomes throughout the 3-year follow-up period.

High success rates and high patient satisfaction were observed with CAMLOG® implants.

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STATEMENT OF PROBLEM: Survival rates of implants in posterior regions vary among clinical studies. Problems occur more often in the posterior segment of the maxilla due to proximity of the maxillary sinus and reduced quality or quantity of alveolar bone.

PURPOSE: This clinical study evaluated the treatment outcomes of 3 brands of implants in the posterior maxillae and mandibles of 63 patients. Treatment outcomes of all implants were assessed according to implant type, location, patient gender, periodontal status, and prosthesis type.

MATERIAL AND METHODS: A total of 203 implants-105 ITI (ITI), 53 Camlog (CAM), and 45 Frialit (FRI)-were placed in 63 patients (38 women, 25 men). One hundred twelve implants were located in the posterior mandible and 91 in the posterior maxilla. All implants were longer than 10 mm and had a diameter larger than 3.5 mm. Implants in the ITI group were placed in a 1-stage surgery. The CAM and FRI groups were treated with a 2-stage surgical protocol. Implants were not loaded until osseointegration was complete, which was determined clinically and radiographically. At that point, implants were restored with 50 single crowns and 81 fixed partial dentures (FPDs). While 11 FPDs connected implants to natural teeth, 70 FPDs were supported by implants only. Standardized radiographs were made, and clinical parameters were recorded at prosthesis insertion (baseline) and at each recall evaluation (6, 12, 24, and 36 months). Plaque index (PI), sulcus bleeding index (SBI), peri-implant probing depth (PD), and radiographic marginal bone loss (MBL) levels were recorded at baseline, along with any biological and mechanical complications. Repeated-measures ANOVA, Kruskal-Wallis test, Wilcoxon signed rank test, and paired samples tests were used for statistical analysis (alpha=.05).

RESULTS: One implant was lost during the osseointegration period in 1 woman due to infection. The cumulative implant treatment outcome was 99.3%. At the 3-year recall, plaque accumulation was significantly higher than baseline scores (P=.01, Wilcoxon signed rank test). Eight percent of the patients presented> 2 mm PD at 2-year recall. The influence of observation time was found to be significant for the mean MBL values between groups (P=.001). When MBL values were compared between groups, no significant differences were found. For 1 patient in the FRI group, abutment loosening was observed and both the crown and the abutment were replaced. Patient satisfaction in all groups was high.

CONCLUSION: The 3 brands of implants evaluated in this study exhibited similar positive treatment outcomes after 3 years.