Clinical and Radiographic Outcome of Camlog Implants in Partially Edentulous Cases After an Observation Period of 10 Years.

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Objectives: The aim of this clinical study was to evaluate the outcome of 253 Camlog implants in the posterior maxilla and mandible in 67 patients after 10 years of functional loading; to report the incidence of the most common technical problems, in implant-supported fixed partial dentures (FPDs), and to and assess the survival and success rate (event-free survival) after 10 years of function.

Materials and Methods: Patients with missing posterior teeth were treated with implants and follow-up examinations were scheduled 1week after suprastructure placement, after 6 months and annually for 10 years. Clinical parameters like plaque index (PI), sulcus bleeding index (BI), peri-implant probing depth (PD), and marginal bone loss (MBL) were recorded along with any biological and mechanical complications at baseline and recall evaluations. Repeated-measurement ANOVA, Kruskal-Wallis test, Wilcoxon signed rank test and paired samples test were used for statistical analysis (p=.05).Complications with implant supported restorations were recorded. Success was defined as event-free survival. Survival and success probabilities were estimated with the Kaplan–Meier estimator.

Results: In 67 patients, a total of 253 implants were placed and restored with 143 implant-supported FPDs (63 single crowns, 80 FPD bridges). Cumulative implant survival rate was 100 %. At 10 years, the mean PD value was 2.33 (0.58) mm, and MBL was 0.35 mm. The survival rate of FPDs supported by implants was 97.94 % after mean follow-up oat 10 years. The success rate (event-free survival) of the FPDs was 96.9%.

Table 1. Patient and implant-related parameters investigated in this study.

Patient-related parameters
Gender
Male: n= 30
Female: n= 37
Age
Mean: 34.5 years
Minimum: 22 years
Maximum: 50 years
Type of supra-structure
Single crown, n= 63
Fixed partial denture, n= 80
Area and number of implants
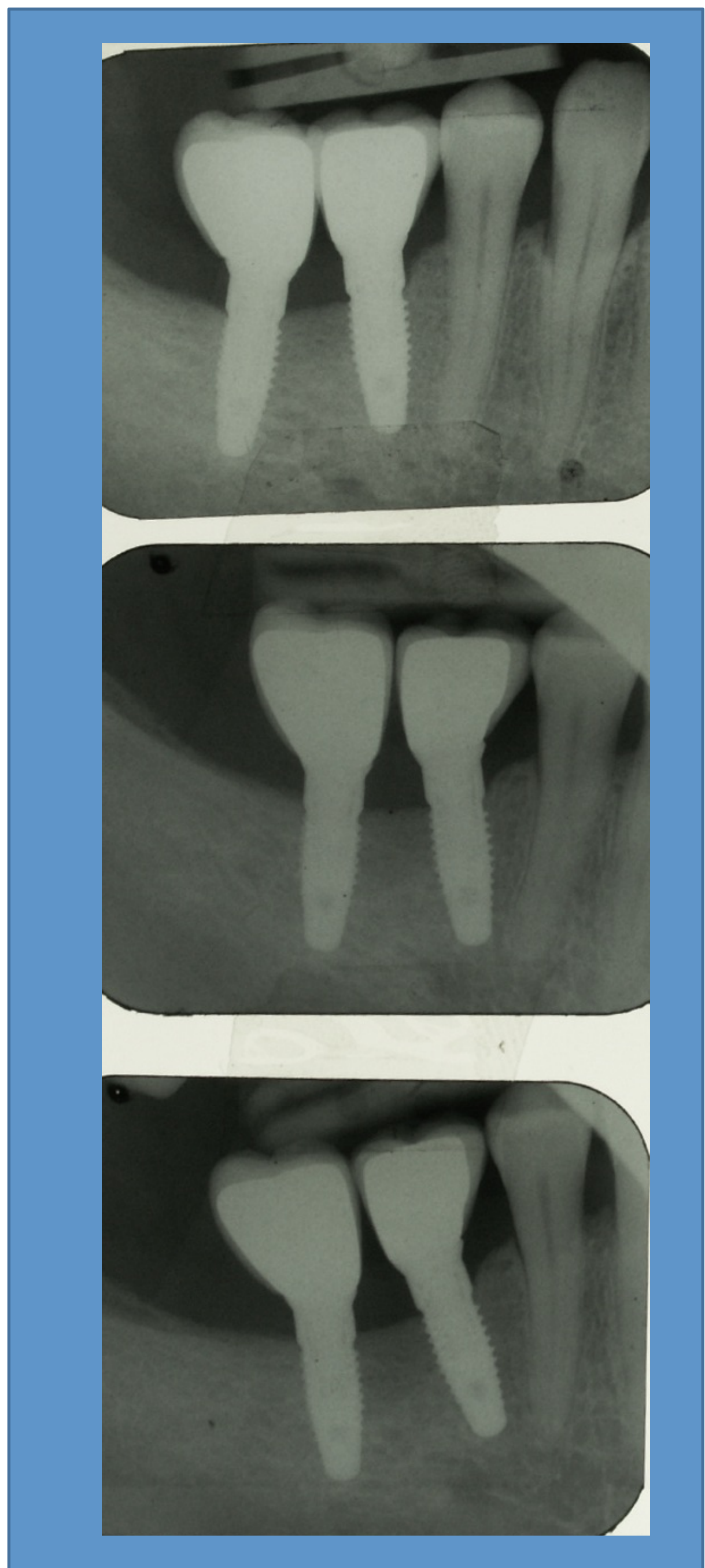Premolar:142
Molar:101
Maxilla: 137
Mandible:116

Table 2. Mean Probing Depth measurements at baseline and recall.

Time	Mean	Sd
Baseline	1.32	0.45
6 months	1.37	0.6
12 months	1.42	0.47
2 year	1.43	0.51
3 year	1.75	0.46
4 year	2.21	0.69
5 year	2.25	0.59
10 year	2.33	0.58

Table 3. Marginal bone level change at 6 month and recall evaluations.

Time	Mean	Sd
6 months	0.08	0. 03
12 months	0.14	0.02
2 year	0.24	0.03
3 year	0.3	0.05
4 year	0.33	0.07
5 year	0.34	0.07
10 year	0.35	0.11

Patient satisfaction								
Parameters	Excellent		Good		Satisfactory		Poor	
	n	%	n	%	n	%	n	%
Esthetics	208	82	45	18	-	-	-	-
Masticatory ability	215	85	38	15	-	-	-	-
Phonetics	253	100	-	-	-	-	-	-
Cleansability	235	93	18	7	-	-	-	-

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Conclusions: Fixed partial dentures supported by Camlog implants showed high clinical and radiographic outcomes and low technical complications rates at 10 years.