Objectives: To assess the rate of biological and technical complications and implant survival in patients treated with implant-supported fixed dental prostheses in a private practice setting after an observation period of at least 5 years.

Methods and Materials: 203 implants were placed and restored in 58 patients. Clinical and radiographic examination was performed to assess types and rates of complications. Patient satisfaction was evaluated through questionnaires.

Results: An implant survival rate of 95.7% was recorded. Biological parameters evaluated included radiographic bone loss (RBL: from 1.5 to 3 mm in 16% of the sites), plaque index (PI: 15.9%), bleeding on probing (BOP: 69.7%), probing depth (1.5 mm ≤ PB ≤ 3 mm in 55.2% of the sites), keratinized tissue width (KTW: ≤ 1.5 mm in 24.6% of the sites) and recession (21%). The most usual technical complication was porcelain fracture (13.1%), followed by resin plug replacement (5.4%). A high score of patient satisfaction was recorded. Conclusions: Implant treatment outcomes in private practice setting with more than 5 years follow-up yielded a high implant survival rate and increased patient satisfaction.

Background and Aim

High survival rates for implants and implant-supported restorations have been reported in the literature. Clinical research has been focusing on the long term results of implant therapy conducted in university or hospital settings, which often involves predefined patient selection. However, little data exist on implant survival, prevalence of biological and technical complications and patient-reported outcomes for implants placed and restored in private practice settings. The aim of the present retrospective study was to assess the survival, complications and patient satisfaction of dental implants placed and restored in a private practice setting after an observation period of at least 5 years.

Methods and Materials

203 parallel wall implants (89% Biomet 3i, 8.4% Straumann, 2.5% Nobel Biocare) were placed by the same practitioner in 58 patients. 93.5% of the restorations were screw-retained and 6.5% cemented. All restorative procedures were performed by a second practitioner. Biological parameters evaluated for each implant included radiographic bone loss (RBL), plaque index (PI), bleeding on probing (BOP), probing depth (PB), keratinized tissue width (KTW), recession, suppuration, mobility and peri-implant radiolucency. The prosthetic parameters evaluated were porcelain fracture, prosthetic and abutment screw loosening/fracture, metal framework fracture, resin plug replacement, loss of contact point and decementation. Patient-related parameters were recorded through patient questionnaires rating satisfaction with appearance, function and general satisfaction. The median follow-up time was 7.8 years. Descriptive statistics and chi square analysis for exploring associations were performed.

Conclusion

A high implant survival rate and increased patient satisfaction were recorded in the present practice-based study. However, managing potential biological and technical complications may increase chairside time and cost. More studies with longer follow-up times are needed in order to assess implant therapy treatment outcomes in everyday clinical practice.