

OSNC5: Ten-Year Survival of Immediate-Loading Implants in Fully Edentulous Maxilla in the Asian Population: A Multilevel Analysis

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Aim: The aim of this study was to evaluate the long-term clinical results of immediate loading of completely edentulous maxilla and determined the outcome predictors in the Asian population.

Materials and Methods: We retrospectively studied 517 implants in 116 patients (47 women, 69 men; mean age 58.4 years) who received immediate-loading implant treatment in fully edentulous maxilla. Kaplan-Meier survival analyses, log-rank tests, and multilevel mixed-effects parametric survival analysis were used for statistical analyses.

Results: 85 patients were treated with four implants, 10 patients with five implants, 20 patients with six implants and one patient with seven implants. Regarding implants length and diameter, the majority of implants in present study were moderate or long length (96.1% implants were 10-18mm) and regular platform (94.6% implants were 3.75-4.3mm). Our results demonstrated that immediate-loading implant treatment for complete edentulous maxilla showed adequate clinical result even in long-term prognosis in Asian population (10-year cumulative implant survival rate was 94.8%). Log-rank tests showed that cumulative implant survival rate was significantly higher in female than male ($p=0.007$). Furthermore, multilevel mixed-effects parametric survival analysis revealed that sex, implant length and region of implant placement might be significant outcome predictors for immediate loading implants in the fully edentulous maxilla.

Conclusion: Immediate-loading implant treatment of completely edentulous maxilla has an acceptable 10-year cumulative implant survival rate in the Asian population and we should pay consideration to sex, implant length and region of implant placement in the immediate- loading implant treatment in fully edentulous maxilla.

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