

## A multicenter prospective study for the rehabilitation of the atrophic edentulous maxilla: immediate load and tilted implant

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**Objectives:** The aims of this prospective study were to assess the treatment outcome of immediately loaded full-arch fixed bridges anchored to both tilted and axially placed implants for the rehabilitation of fully edentulous maxillae and to compare the outcome of axial versus tilted implants.

**Material and methods:** Forty-one patients with edentulous maxillae were included in the study. Each patient received a full-arch fixed bridge supported by four axial implants and two distal tilted implants. Loading was applied within 48 h from surgery. Patients were scheduled for follow-up at 6 months, 1 year and annually up to 5 years. Radiographic evaluation of marginal bone level change was performed at one year.

**Results:** One patient died four months after surgery. Thirty patients were followed for a minimum of one year (range 3–42 months, mean 22.1 months). Three failures were recorded at one-year follow-up (two axial implants and one tilted). Two more implants (one tilted and one axially placed) were lost within 18 months of loading. The one-year implant survival rate was 98.8% for both axial and tilted implants. Prosthesis success rate was 100% at one year. Marginal bone loss around axial and tilted implants at 12-month evaluation was similar, being respectively  $0.9 \pm 0.4$  (standard deviation) mm and  $0.8 \pm 0.5$  mm.

**Conclusions:** The present preliminary data suggests that immediate loading associated with tilted implants could be considered a viable treatment modality for the atrophic maxilla and that there seems not to be a different clinical outcome between tilted and axial implants.