Flapless surgery and immediate loading versus the classical surgical protocol

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Objectives: The aim of this study is to compare the outcome of implants placed using a flapless protocol and immediate loading with a conventional protocol and loading after 6 weeks.

Materials and methods: 14 patients with bilateral maxillary edentulous areas were treated using Straumann SLA-implants. Implants were placed in one side with a stereolithographic surgical guide for flapless surgery and immediately loaded on temporary abutments. In the other side, implants were conventionally placed and loaded after 6 weeks. Opinions were evaluated using a Visual Analogue Scale [0-10 cm] at different time points.

Results: A total of 73 implants were placed (36 flapless, 37 conventionally). One implant (flapless) was lost after 3 months, resulting in a survival rate of 97.3% for the flapless implants and 100% for the flap implants. One week after surgery, statistically significant differences were found between the 2 sides for opinion about speech, function, aesthetics, self-confidence and overall appreciation. There was no statistically significant difference for pain and comfort at any time-point. Mean treatment satisfaction was 6.62 (± 3.045), 8.085 (± 1.125), 8.067 (± 1.485) for the flap side versus 8.262 (± 0.891), 8.208 (± 0.992), 7.608 (± 2.053) at 1 week, 6 weeks and 3 months post-operative. There were no statistically significant differences between those scores.

Conclusion: Implants can successfully integrate in the posterior maxilla using a flapless approach with immediate loading. From a patient’s point of view, this protocol is more accepted immediately after implant surgery. However no difference in pain and discomfort was observed between the 2 protocols.

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