

Immediately provisionalized OsseoSpeed® Profile implants inserted into extraction sockets: 3-year results

Authors: Noelken R, Oberhansl F, Kunkel M, et al.

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Summary by Dentsply Sirona of facts retrieved from the original article.

Aim

This prospective, 3-year study aimed at evaluating the clinical outcome of OsseoSpeed Profile implants when placed in extraction sockets in the anterior maxilla followed by immediate provisionalization.

Material and Methods

In total, 16 patients were rehabilitated with 21 implants with a sloped shoulder (OsseoSpeed Profile, Astra Tech Implant System, Dentsply Sirona Implants) in the anterior maxilla.



All implants were placed in extraction sockets applying flapless surgery and immediate provisionalization. Facial gaps were grafted with autogenous bone. To avoid bone chips contaminating the inner surface of the implants, healing abutments (Uni Abutments, Dentsply Sirona Implants) were inserted. Once the temporary restoration was fabricated (on the same day as implant placement) the healing abutment was replaced with TiDesign abutments (Dentsply Sirona Implants) to which the temporary restoration was cemented. Implants were splinted and after a minimum of 3 months the permanent restoration was delivered where zirconia crowns were cemented onto Atlantis zirconia abutments or ZirDesign abutments (Dentsply Sirona Implants). Patient visits were scheduled pre-operatively, at implant placement, at prosthetic delivery, and then at 1, 2 and 3 years after surgery to record clinical and radiological follow-up.

Results

During the course of the study 1 patient withdrew from the study and 1 patient lost an implant. Mean marginal bone levels during the 3-year follow-up period are shown in Table 1. The pink esthetic score (PES), according to Fürhauser et al., increased from 10.58 pre-operatively to 11.89 at the 3-year visit. No correlation could be established between the PES score and level of marginal bone.

Discussion and Conclusion

This 3-year study could show that implants with a sloped ridge can maintain the marginal bone circumferentially as well as maintain soft tissue esthetics when placed in extraction sockets and subjected to immediate loading. This holds true also in those cases with the presence of facial bony wall defects.

	Follow-up visit				
	Implant insertion	Prosthesis delivery	1 year	2 years	3 years
Mean MBL (mm)	0.8±0.6	0.2±0.6	-0.1±0.5	-0.2±0.5	-0.2±0.4

Table 1. Mean marginal bone levels (MBL) over time.

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