**Introduction**

To overcome the disadvantages of staged implant surgery and treatment, immediate loading concepts as well as flapless surgery approaches have been introduced in recent years. Specifically, promising results in terms of high success rates and reliable esthetic outcomes have been reported for implants placed in extraction sockets and immediately loaded via provisional crowns and prosthesis. In the anterior maxilla the extraction socket anatomy is sloped in a lingual to buccal direction and the placement of a regular implant is not optimal. A dental implant with a sloped marginal contour, OsseoSpeed™ Profile (Astra Tech AB, Möndal, Sweden), has been developed to optimize implant placement in such situations. The study examined the clinical performance of OsseoSpeed™ Profile implants and the transgingival components in a one-stage procedure with immediate insertion and provisionalization in the anterior maxilla.

**Materials and Methods**

22 OsseoSpeed™ Profile implants were inserted in 17 patients. All implants were placed immediately into extraction sockets. Facial bony defects (2 total, 8 partial losses of the horizontal root fracture) were reconstructed immediately with autogenous bone chips without raising a flap. All patients received immediate provisional restorations. Primary outcome variables were implant survival, marginal bone levels and Pink Esthetic Score.

**Results**

Mean primary stability at time of implant insertion was 23 Ncm; 3 further implants had to be excluded because of insufficient primary stability for immediate provisionalization (below 15 Ncm). Mean follow-up was 16.8 months (range 8.1 to 21.6 months). There was one implant loss. Cumulative survival rate according to Kaplan-Meier was 98.7%. Marginal bone level remained stable from the time of implant insertion to the final follow-up. In 73% of the implant sites it was possible to keep the gingival esthetics stable or even to improve it from the pre-operative examination (mean 10.6, SD 2.3) to the final follow-up (mean 11.5, SD 1.4).

**Conclusions**

Results of survival rate, marginal bone stability and esthetic improvement suggest proof of principle for immediate provisionalization of Astra OsseoSpeed™ Profile implants.

**Literature**

- De Santis E, Botticelli D, Pantani F, Pereira FP, Beolchini M, Lang NP. Contact to oral bony lamella. Fig. 1: Immediate implant insertion in the extraction socket. Fig. 2: Immediate non-functional provisionalization. Fig. 3: Immediate splinted temporary restoration on TiDesign abutment.