

More than pure esthetics.

The natural and strong solution.

Case Report: Straumann® PURE Ceramic Implant

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With the launch of the Straumann® PURE Ceramic Implant, Straumann takes a step into the future. The long-standing wish of many ambitious practitioners for a completely metal-free alternative in the Straumann® Dental Implant System has now become reality. The microscopically rough surface results in reliable osseointegration of the implant body. Comparability with the osseointegration of titanium implants has been proven in several animal studies; evidence-based data is also available on the mechanical aspects. The physical properties of this high-performance ceramic, in conjunction with dependable manufacturing processes, provides very high breaking strength. The very natural coloration promises advantages with thin mucosa or gingival recession – particularly in the esthetic zone. First clinical results show very good esthetics along with irritation-free peri-implant gingival conditions.

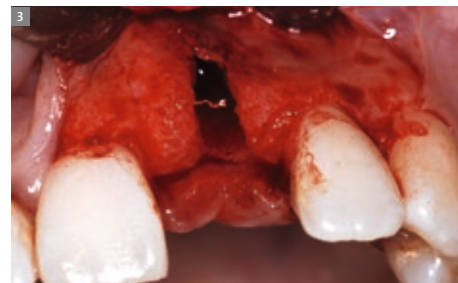
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INITIAL SITUATION

In this 29-year-old female patient, a vertical fracture of tooth 21 led to marginal inflammation, which was particularly noticeable due to the high smile line (Fig. 1). After taking an impression of the upper and lower jaws, a resin-clasped removable partial denture was made to ensure that the gap was filled immediately after the upcoming extraction.

SURGICAL PROCEDURE

Tooth 21 was extracted (Fig. 2). A buccal bone defect was identified during removal of the tooth. Following extraction of the tooth, the removable partial denture was fitted for optimum passivity. Subsequent treatment was delayed until after epithelialization of the alveolar ridge. Eight weeks after removal of the tooth, a crestal incision was made in the middle of the alveolar ridge with a marginal incision around the neighboring teeth in order to sufficiently reveal the alveolar site with the still existing bone defect (Fig. 3).



Following was the insertion of the one-piece ceramic implant with the aid of an orientation device to verify the correct axes. The autologous bone harvested during the implantation was used to augment the dehiscence area and subsequently covered

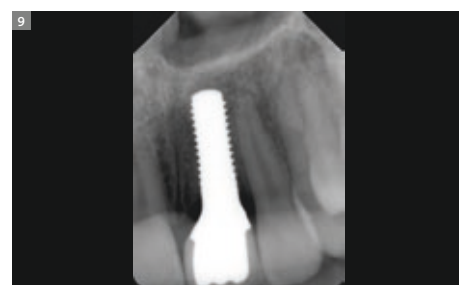
with a collagen membrane (Figs. 4, 5). The follow-up process after surgery was uneventful (Fig. 6), meaning that the implant could be exposed after a healing period of three months.



PROSTHETIC RESTORATION

The natural gingival contours were preserved by making a chair side temporary tooth. Subsequently, the final shape was created by a laboratory-made long-term temporary crown which applied papillary compression to the interproximal areas (Fig. 7). The de-

finitive impression was taken in a final step with the manufacture and insertion of a ceramic anterior crown (Fig. 8). The post-operative x-ray shows correct positioning in the bone (Fig. 9).



CONCLUSION

The gradual treatment process gave the patient an optimal outcome in the rehabilitation of this challenging esthetic situation. The use of a one-piece Straumann ceramic implant with micro-rough surface and optimal biocompatibility satisfies not

only treatment success but also the desire of the patient for a completely metal-free solution in an otherwise caries-free set of teeth. The procedure for necessary GBR measures was analogous to the procedure for titanium implants.

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