

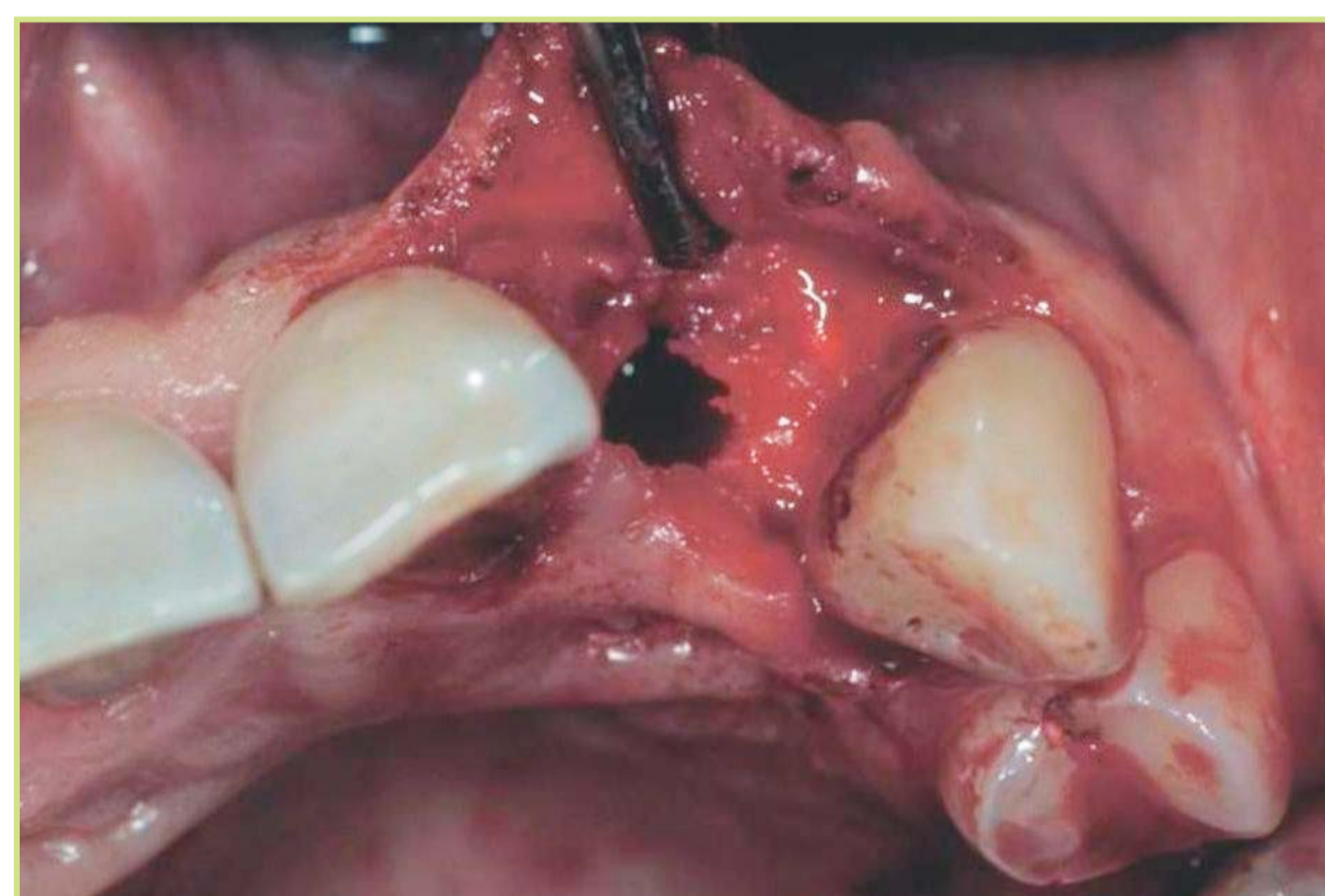
# Aesthetically and biologically harmonious integration of an implant-supported anterior crown.

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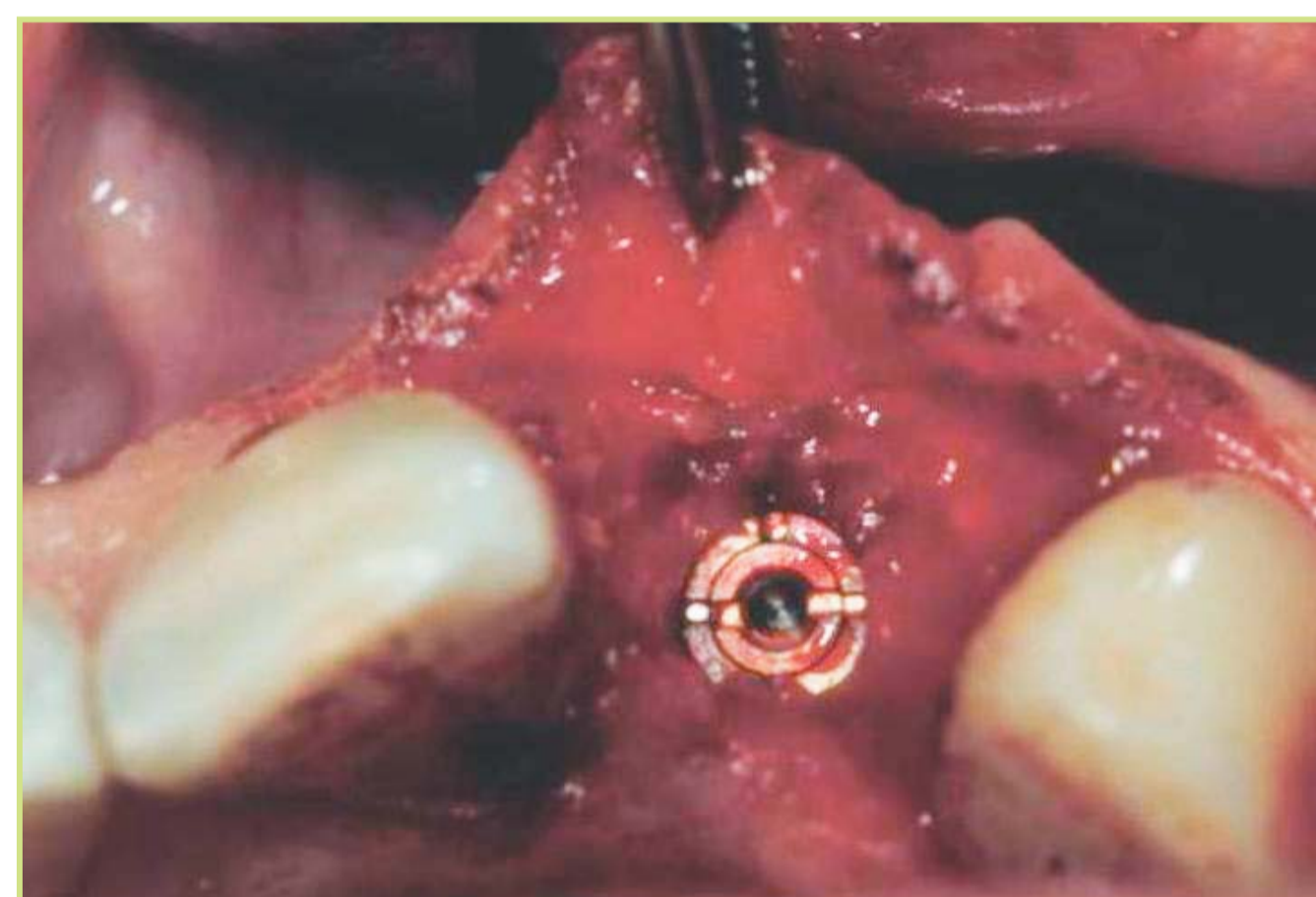


The production of a perfect single crown belongs to the king's discipline in dentistry. The success of such a reconstruction is based on various preconditions and rules that are interrelated and that, if strictly observed, ensure a natural treatment outcome. This includes early and non-traumatic surgical treatment, mechanical stability of the implant and the use of state-of-the-art ceramic materials and technologies. The result is a highly aesthetic and harmonious restoration promising long-lasting success. The following case describes a missing incisor of a patient.

An orthopantomograph helped to determine the vertical dimension. In addition, a drilling stent ensured the correct surgical positioning of the implant. Following infiltration anaesthesia, the alveolar ridge was exposed, and an Ankylos was inserted (Friadent-Dentsply, Germany). Transgingival healing, as preferred in the present case, makes it unnecessary to perform a second stage surgery to expose the implant.



Insertion of the Ankylos implant 3,5 / 14 mm



Transgingival implant healing

Six weeks after the operation, the implant was provisionally restored with a direct intraoral temporary resin crown. A six-week conditioning phase followed, during which the patient was instructed to avoid overloading the implant by following a soft diet.



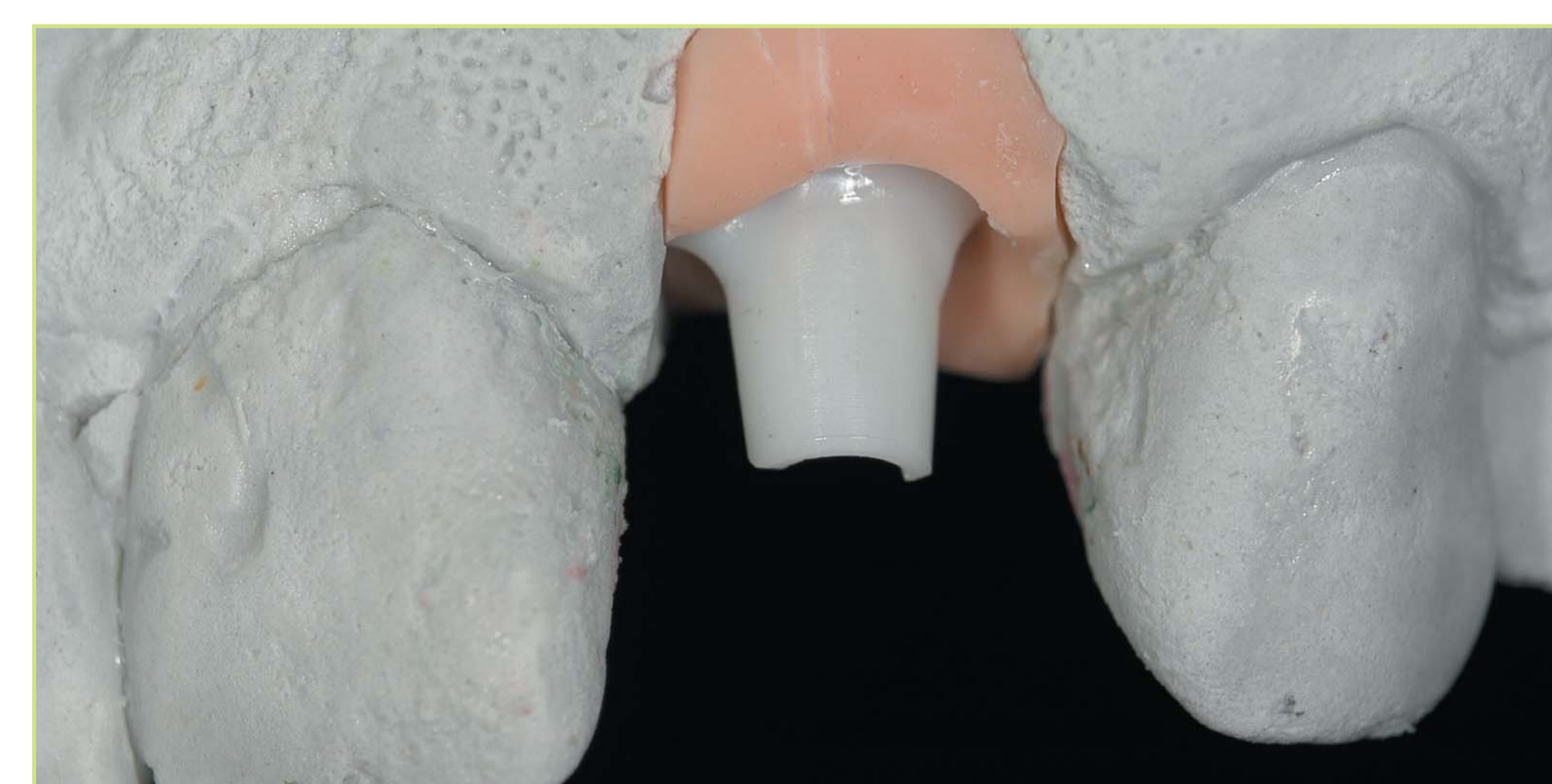
Provisional crown in place during the six-week bone conditioning phase

The regeneration potential of the peri-implant soft tissues is obvious as early as four weeks after the definitive insertion of the implant-supported crown, and the emergence profile achieved is excellent. Six months after insertion, the interdental papillae are fully formed. The postoperative orthopantomographs show that the periimplant bone situation is stable. Since the last three years. Also the soft-tissue situation continues to be highly stable.

The impression was taken with Impregum in a standard impression tray (Espe, Germany). The dental technician chooses and individualises a Cercon-Abutment. The primary objective to be achieved by customizing the abutment is to place the crown margin approximately 1.5mm submucosally. This is particularly important in the anterior region, where an aesthetic and natural outcome is an absolute requirement, as the emergence profile of the new restoration is a function of the shape of the definitive crown.



Impression coping



The customized abutment



Immediately after the insertion of the definitive crown



A distinct regeneration of the papillae is visible as soon as four weeks after insertion.



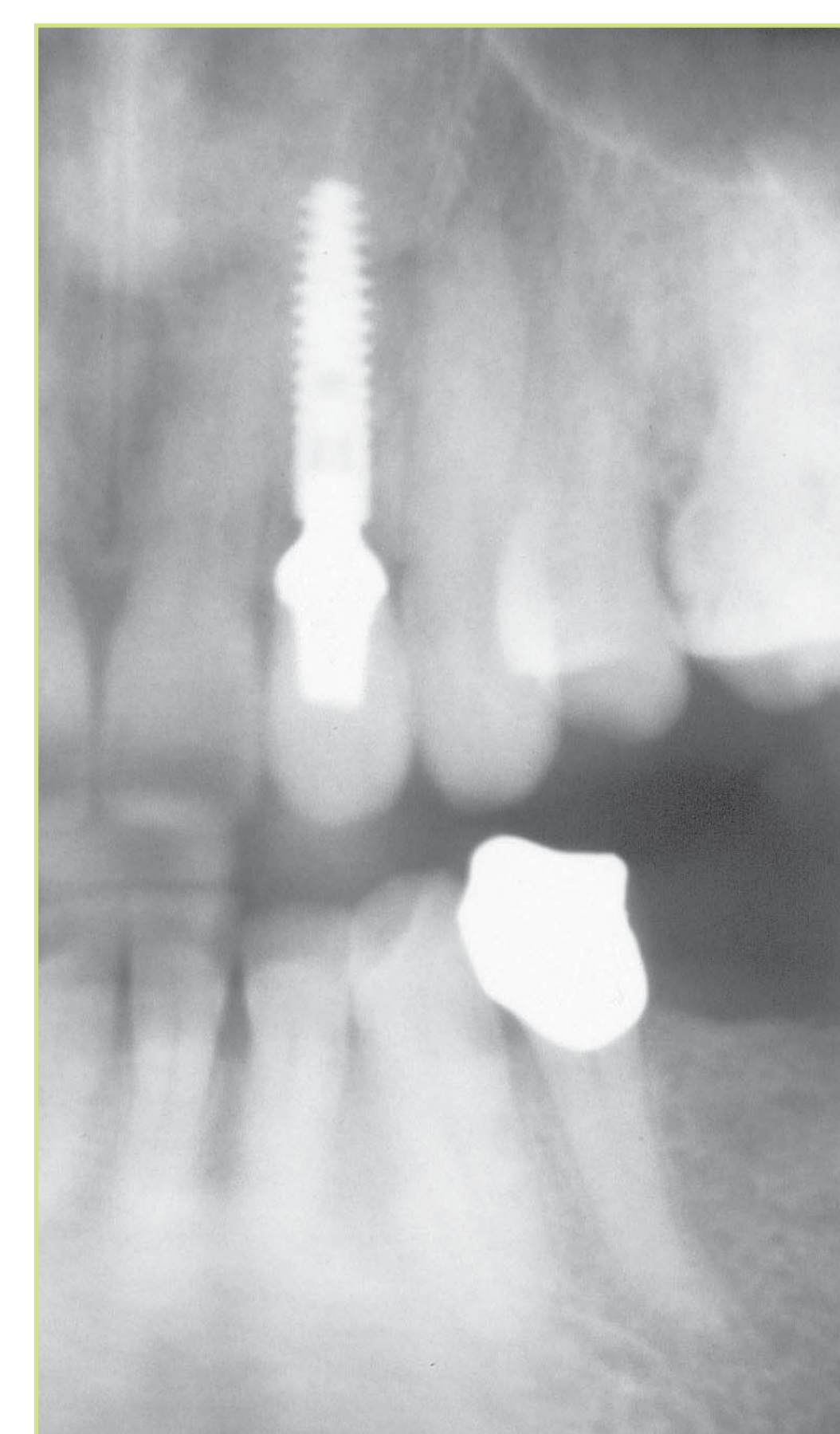
Clinical appearance 24 months after insertion of the implant-crown



After 3 years



After 4 years



Several factors were jointly responsible for achieving a natural result: an early and non-traumatic surgical treatment, mechanical stability of the implant and the use of ceramic materials. The treatment outcome was aesthetically sophisticated and harmonious, with good long-term stability.

Orthopantomograph detail 24 months postoperatively

## Literature:

Monaco C, Krejci I, Bortolotto T, Perakis N, Ferrari M, Scotti R. Marginal adaptation of 1 fiber-reinforced composite and 2 all-ceramic inlay fixed partial denture systems. Int J Prosthodont. 2006 Jul-Aug;19(4):373-82. PMID: 16900821 [PubMed - indexed for MEDLINE]