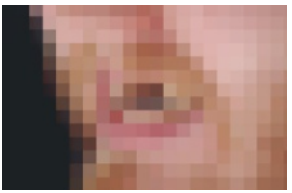
Paul Sipos
Andreas Nolte

Casebook

QUINTESSENCE PUBLISHING



Cover: Paul Sipos, pixelated version of photo "Restoring a Viking," submitted on behalf of the Dutch Society of Periodontology for the 2nd EuroPerio Photo Contest 2022. No other images in this book were retouched or altered by photo editing software except for occasional white balance adjustments and removal of camera lens dust particles.

A CIP record for this book is available from the British Library.
ISBN: 978-1-78698-138-7

QUINTESSENCE PUBLISHING DEUTSCHLAND

Quintessenz Verlags-GmbH
Ifenpfad 2–4
12107 Berlin, Germany
www.quintessence-publishing.com

Editing and Production: Quintessenz Verlags-GmbH, Berlin, Germany

Printed and bound in Croatia

Contents

Immediate with soft tissue


copyright by
not for publication
08.07.14

In medicine, closed surgery is defined as surgery without a cut to the skin, or at most with a very minimal incision. Increasingly, surgery that in recent history entailed hospitalization and major recovery is now performed via body orifices, resulting in faster healing times. The current trend is toward smaller incisions and less morbidity. In dentistry too, open surgery should only be considered when closed surgery (immediate implant placement after extraction) or limited access is contraindicated.

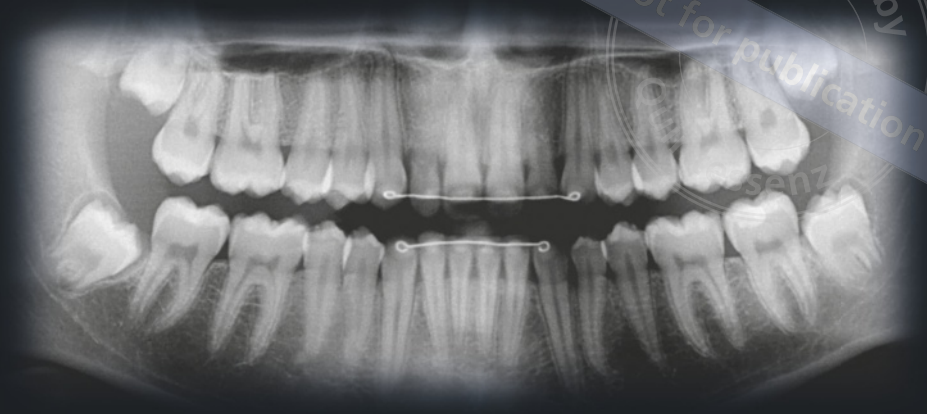
The maxillary right lateral incisor in the pristine dentition in this case suffered from severe root resorption after orthodontic therapy. A surgical cut would have left visible scars or caused irreversible tissue shrinkage. Since tooth 12 had become very mobile, we opted for closed surgery, extracting the tooth with simultaneous implant placement.

Changes in the periodontal tissue occur with increasing age, leading to thinning of the buccal marginal gingiva. For that reason, we not only used Bio-Oss to fill up the buccal gap between the implant and the buccal lamella, but also augmented the soft tissue with a collagenous graft from the tuberosity. The natural tooth was used as an autologous bridge.

After 5 months, an impression was made for a screw-retained transitional crown, made of composite, with the impression coping as a supporting structure underneath. We decided on the term transitional for this diagnostically important composite crown. We felt that the term provisional was too passive for a dynamic construction that sometimes needs adjustments, and functions as a transition to the final ceramic suprastructure.

After a relatively long period of adaptation (6 months), the tissue was stable and an impression could be made with an individualized impression coping for the definitive ceramic construction. Care was taken to duplicate the emergence of the transitional in the ceramic abutment. The images 4 years after crown placement showed that a lasting reconstruction had been achieved.

Severe root resorption of tooth 12.

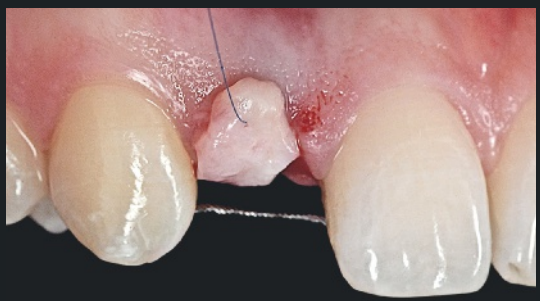


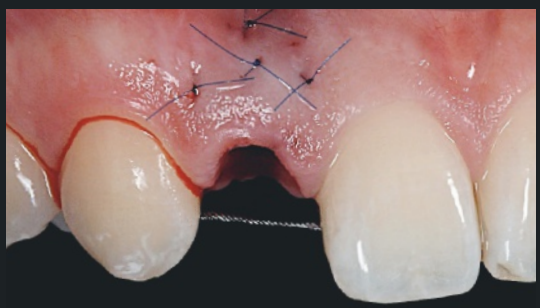
08.07.14

Extraction of tooth 12 and placement of the drill template.

12.01.15

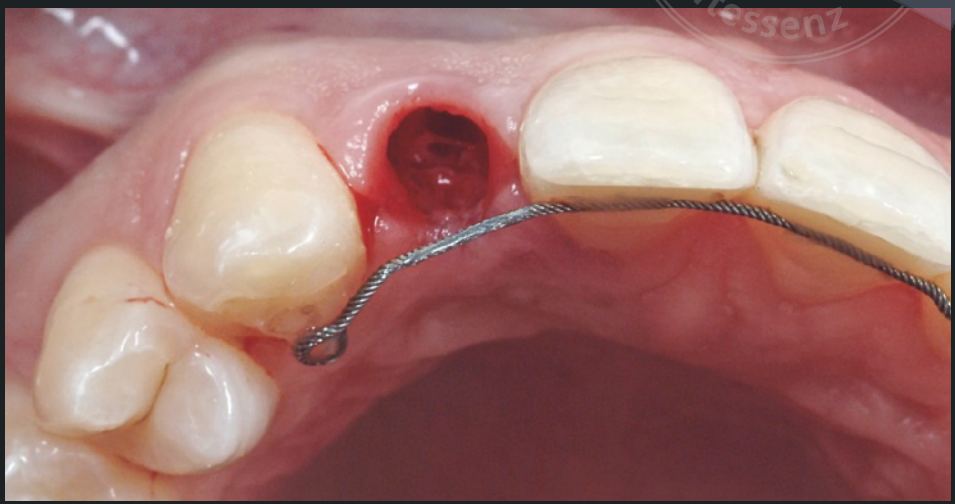
Placement of the implant, Bio-Oss, and soft tissue from the tuberosity.

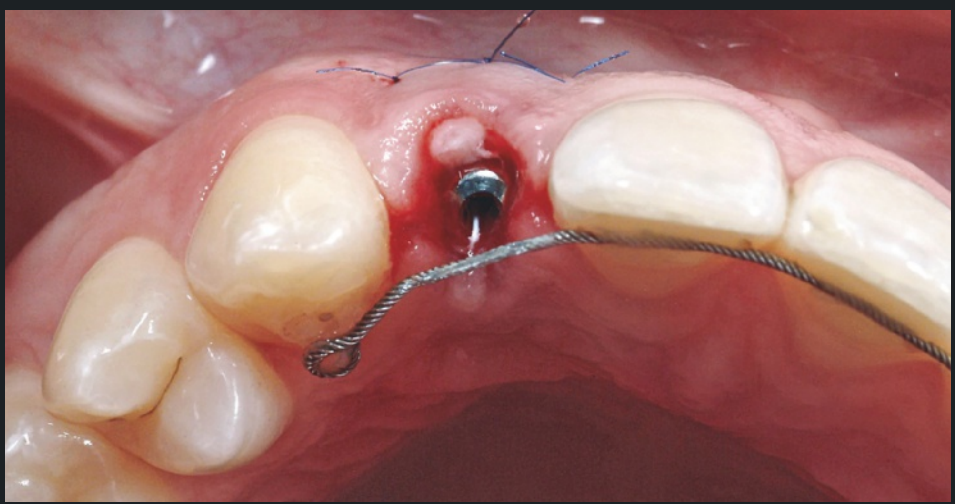




12.01.15

Occlusal view of the healing abutment and soft tissue transplant.





12.01.15

Camlog 3.3-mm implant with a wide body 4-mm abutment and an autologous bridge.

12.01.15

20.01.15

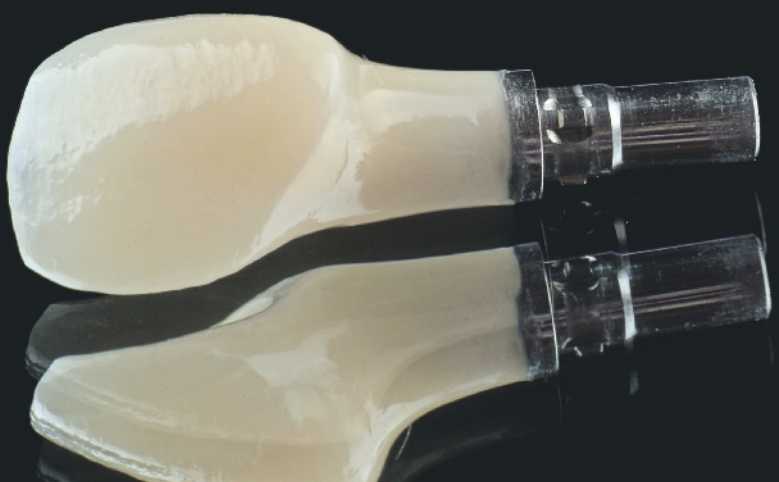
09.06.15

09.06.15

Impression of the implant for the screw-retained transitional.

09.06.15

Screw-retained transitional.



06.07.15

Tissue adaptation after placement of the transitional.

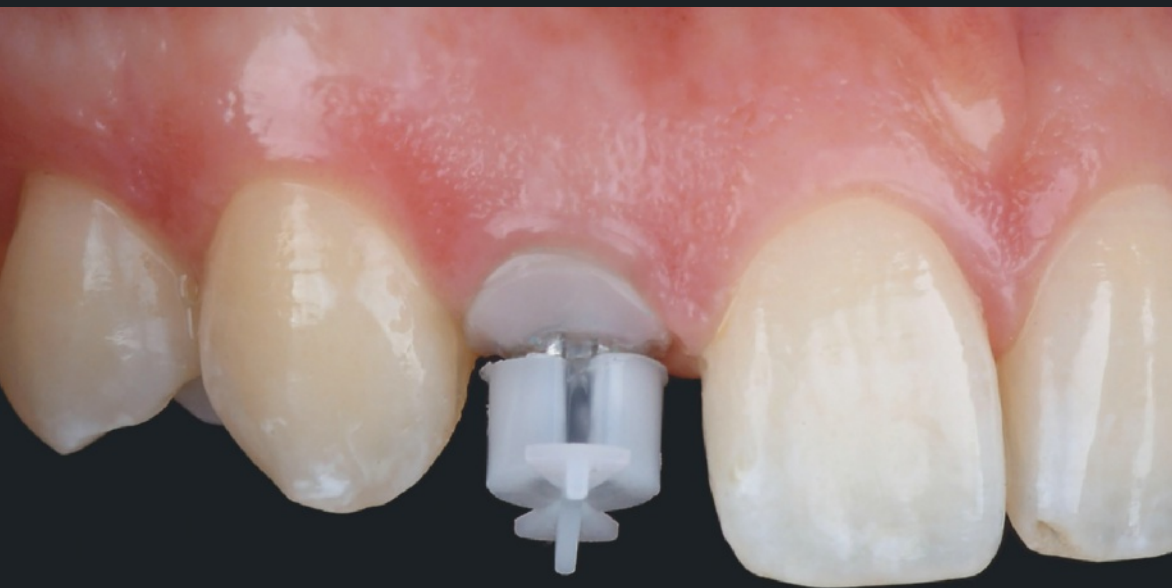
06.07.15

06.07.15

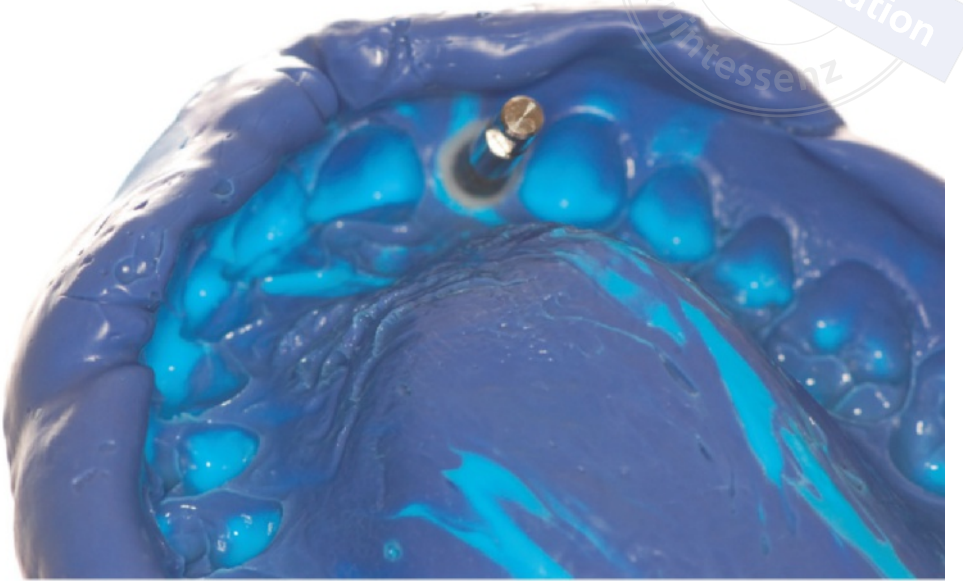
13.07.15

07.01.16

Impression with an individualized impression coping.



The emergence profile of the transitional is assessed. The best time for corrections is during the design of the definitive zirconia abutment.



It is advisable to apply a lower firing of the ceramic mixture when fine adjustments are required during the try-in. Here you can see the applied correction mixture as a force vector to move the marginal gingiva in the cranial direction.

The firing temperature of the correction is far below that of the final glaze firing.

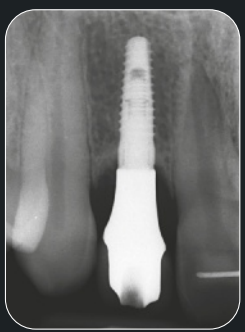
Comparison of the definitive restoration and the transitional.

08.01.16

Finalized ceramic restoration.

21.01.16

Screw-retained ceramic crown on the day of placement.



21.01.16

21.01.16

21.01.16

Day of crown placement.

21.01.16

A minor chip has occurred on the incisal edge of the ceramic crown 4 years after crown placement.

16.01.20


copyright by
not for publication
21.01.16