

CLINICAL CASE



A metal-free solution for restoring natural esthetics

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Patient

57-year-old, female, no health problems, good oral health

Clinical situation

Patient seeking restoration of a healed premolar and molar site following extraction, with a single dehiscence defect.

Surgical solution

NobelPearl™ Tapered dental implant system RP 4.2 x 10 mm

Restorative solution

NobelPearl Abutment Straight Inter-X RP 1 mm with splinted monolithic zirconia crowns

Surgery date

July 2018

Total treatment time

4 months

Tooth position

45, 46 (FDI system)

"Handling of the NobelPearl implant is easy, and the outcome is clinically reliable. These are the most important factors for a successful integration of ceramic implants in daily dental practice."



Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Healed site following extraction of teeth in positions 45 and 46, 3 months and 1 year before surgery, respectively.

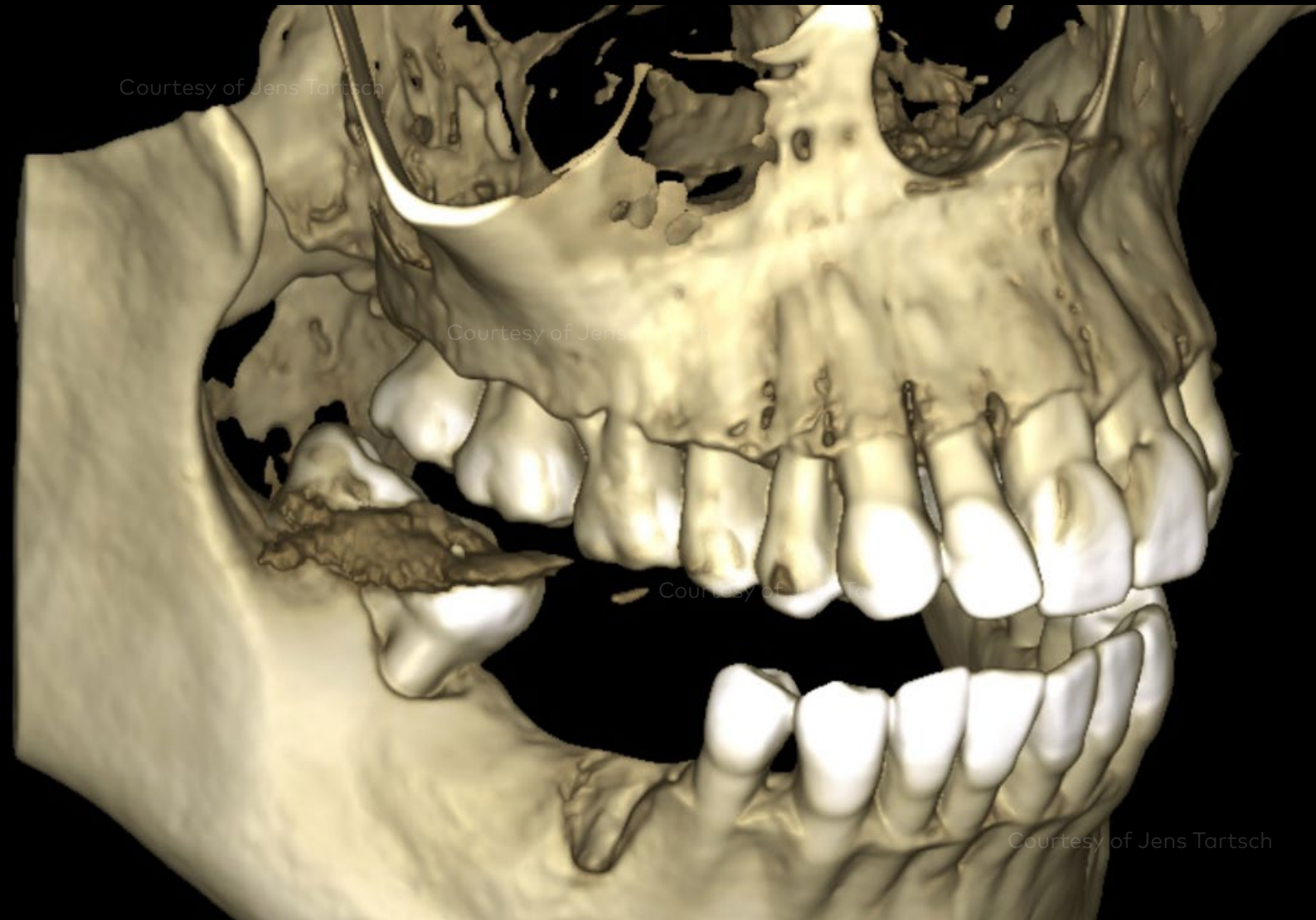
Initial clinical situation

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Presurgical cone beam computed tomography showed lateral defect near tooth position 45.

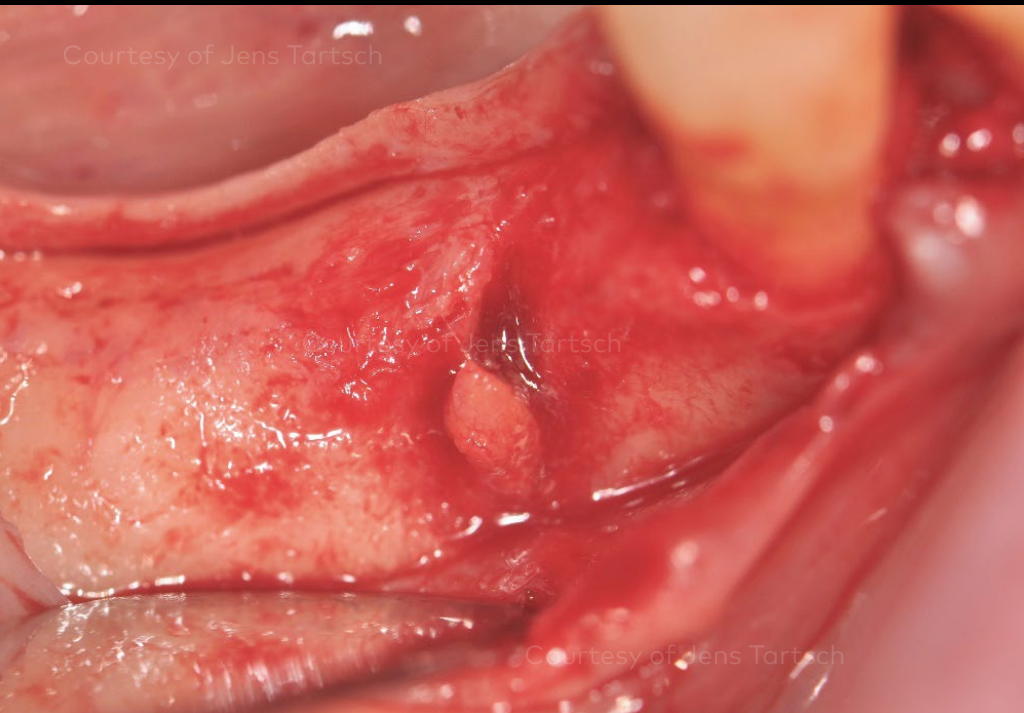
Initial clinical situation

Treatment planning

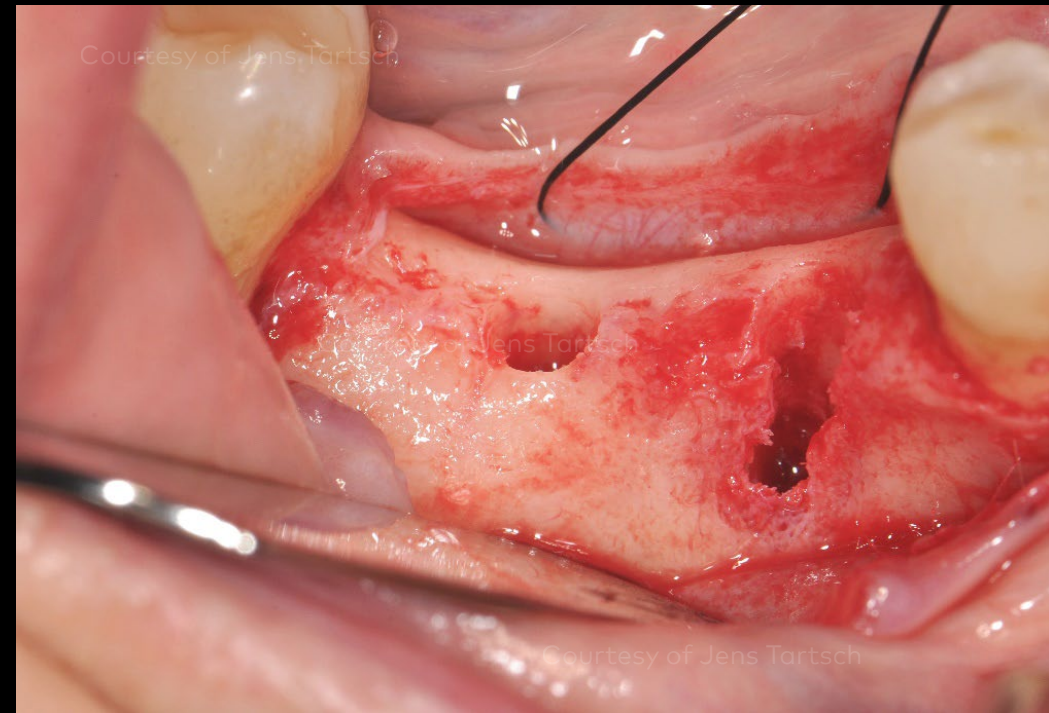
Surgical procedure

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Outcome



Cleaning of the alveolar bone at tooth position 45.



Suitable bone for implant insertion at tooth position 46, and lateral defect at position 45.

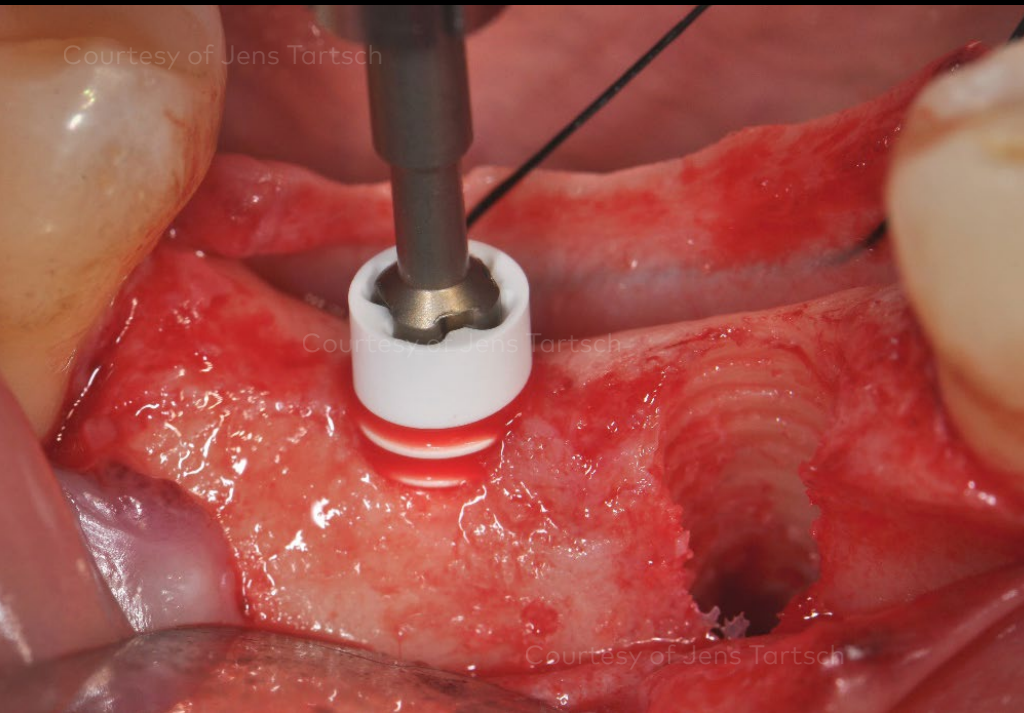
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Treatment planning

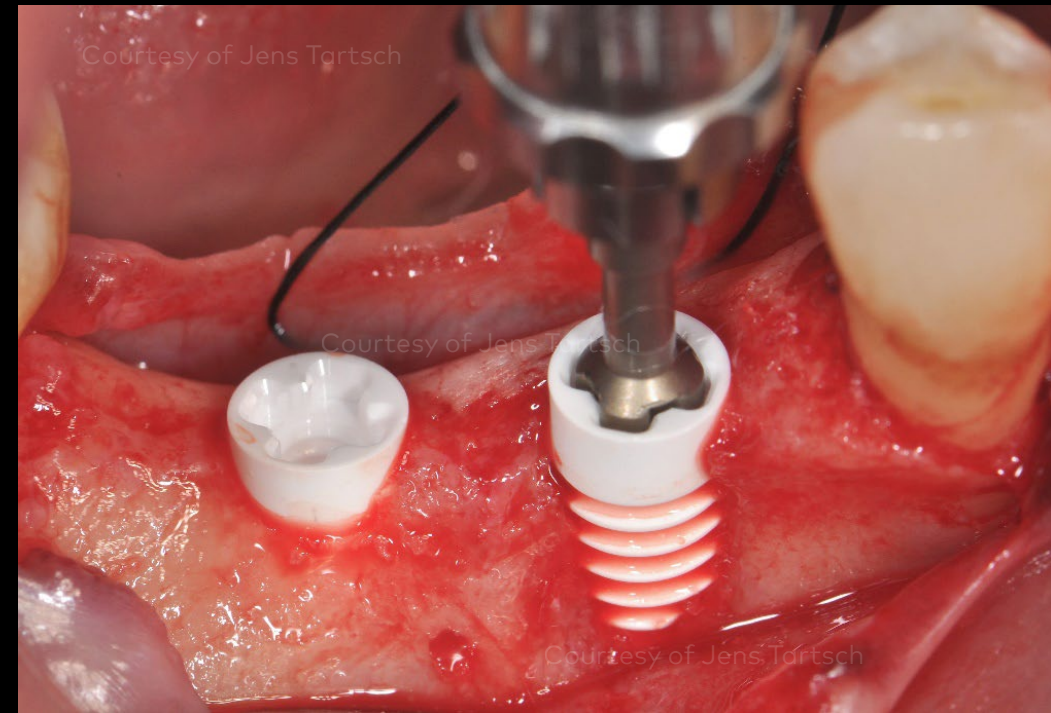
Surgical procedure

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Outcome



Manual insertion of NobelPearl Tapered RP 4.2 x 10 mm using NobelPearl Implant Driver Inter-X following preparation of both sites.



Both implants with partially machined collar were inserted 0.6 mm supracrestal. Primary stability was good.

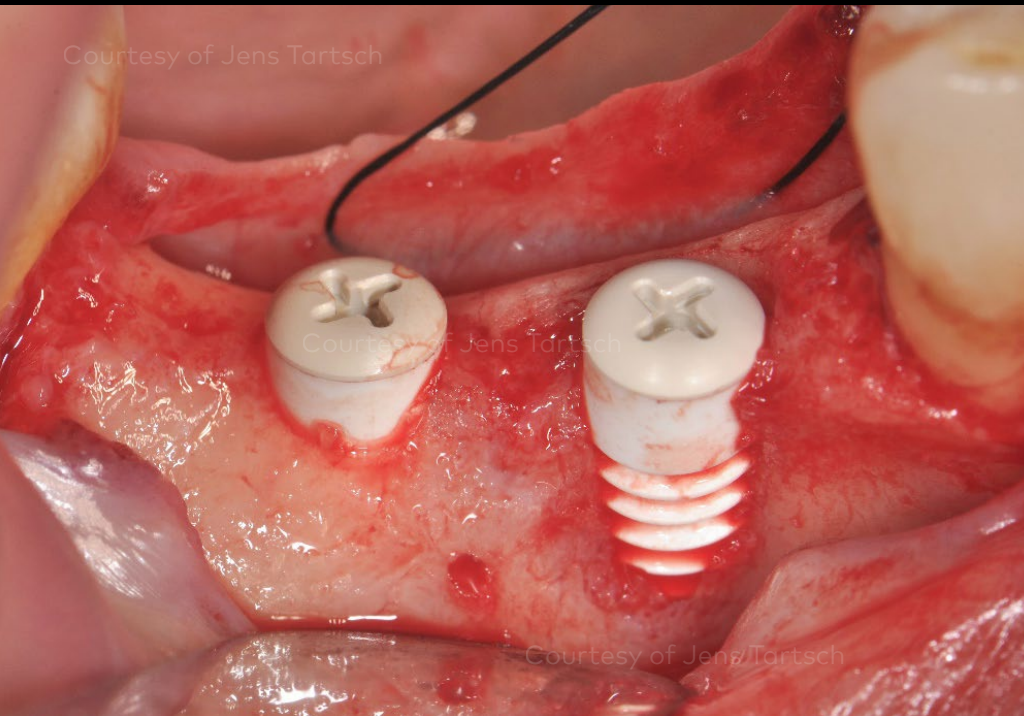
Initial clinical situation

Treatment planning

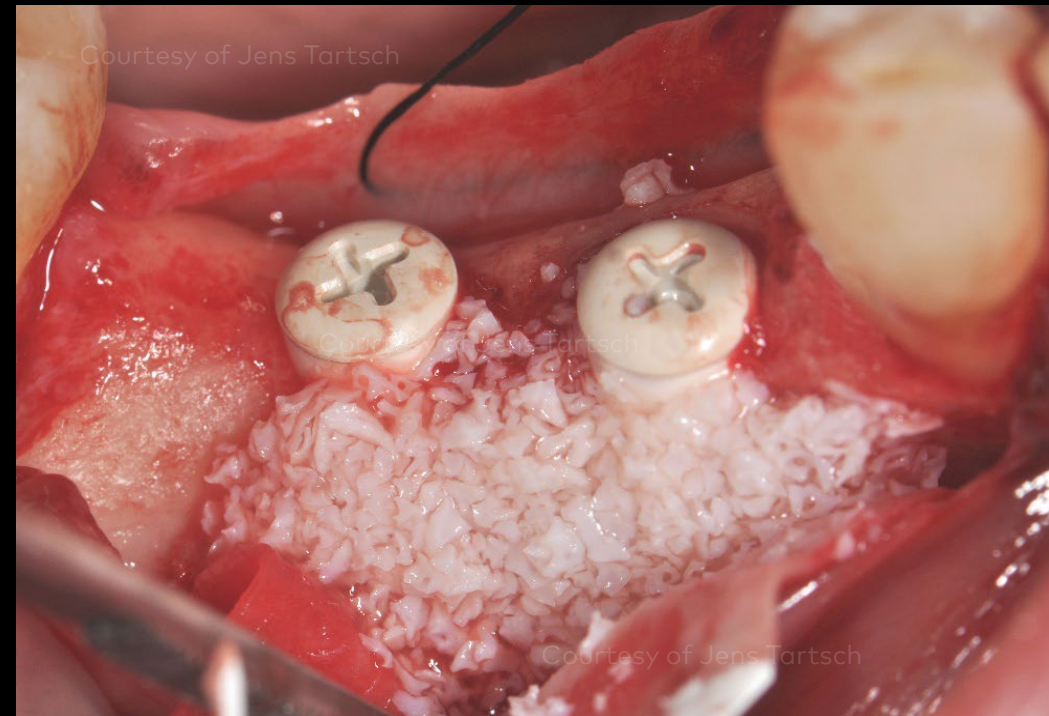
Surgical procedure

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Outcome



NobelPearl Cover Screw Inter-X in situ.



Horizontal augmentation using deproteinized bovine bone.

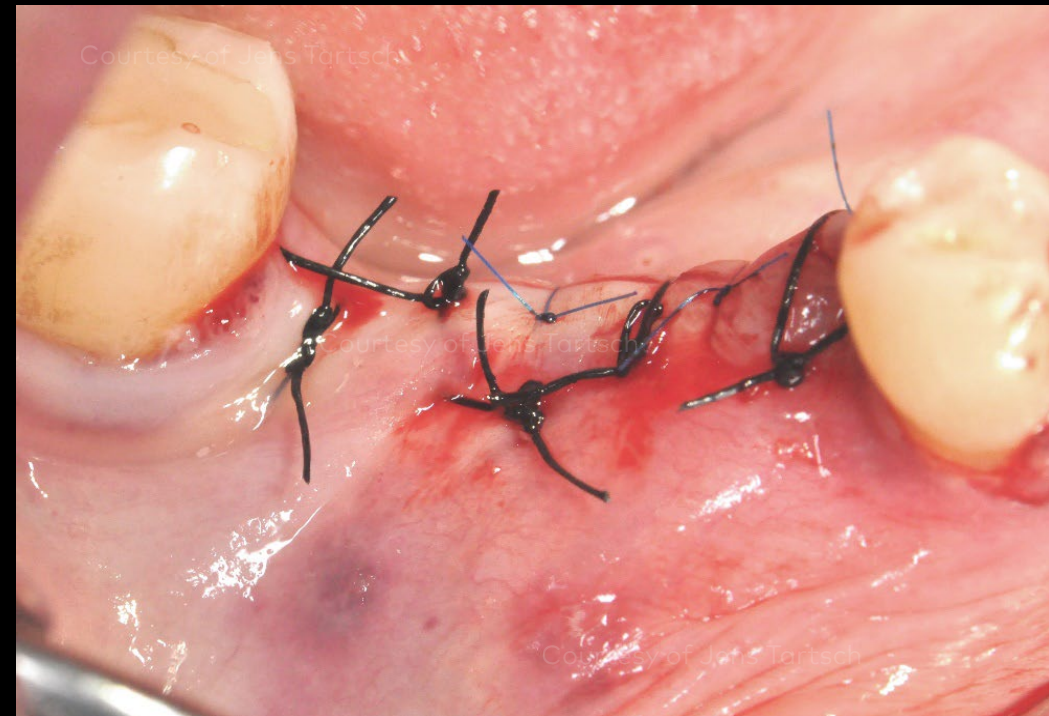
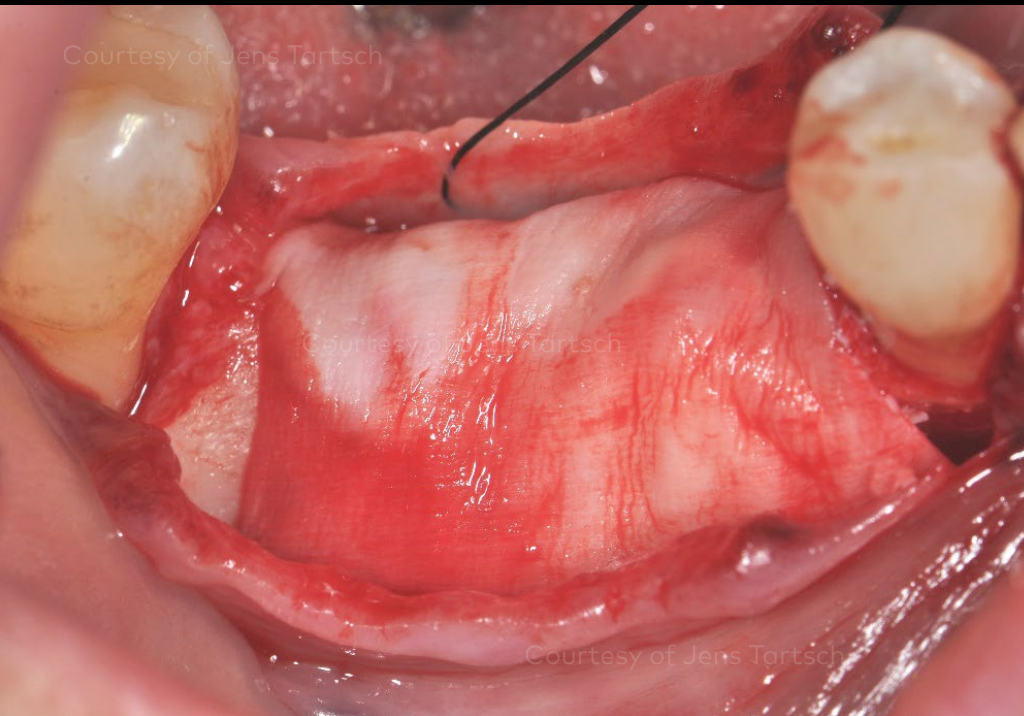
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Implants covered with a resorbable collagen membrane.

With a two-piece implant system, primary wound closure is possible.

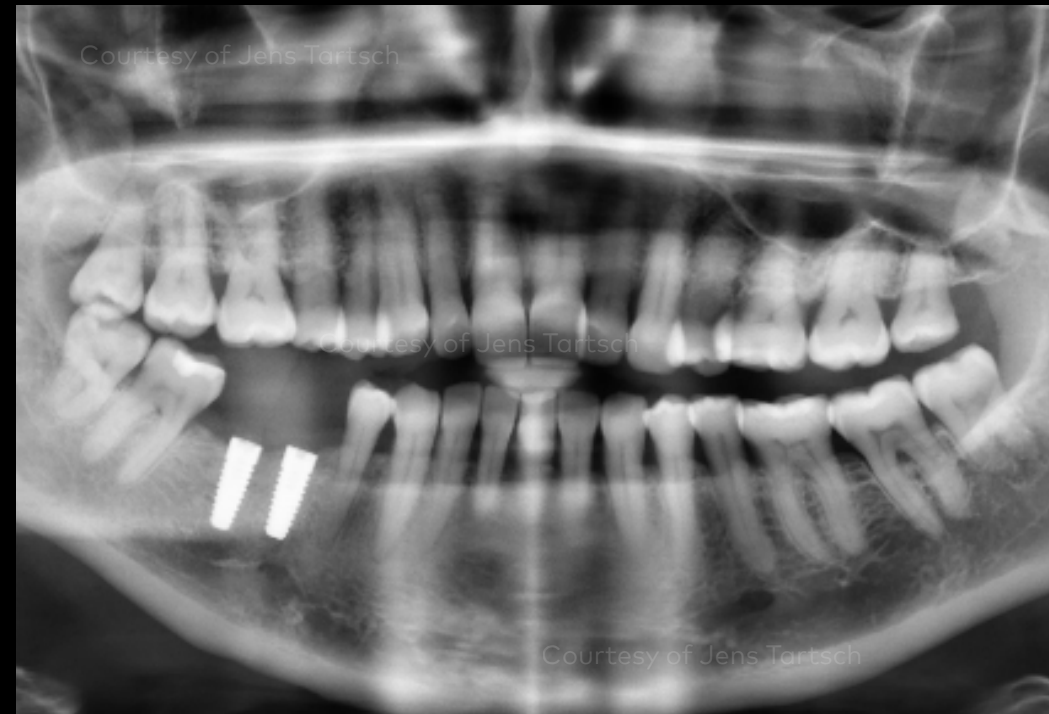
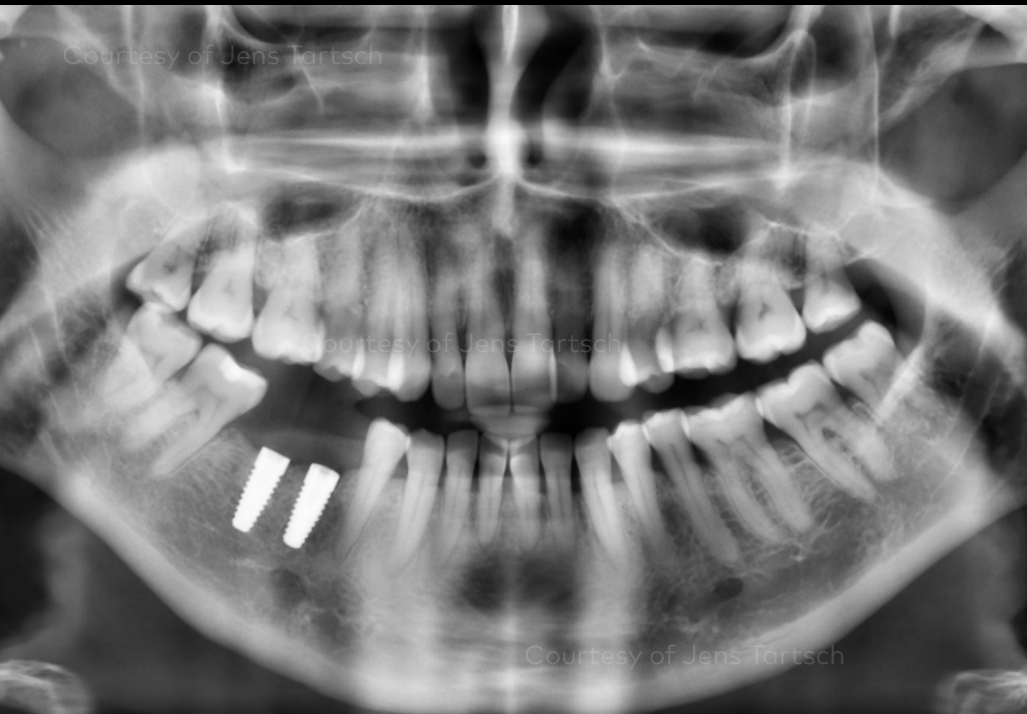
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Orthopantomogram (OPG) at surgery.

3-month post-surgical OPG control, before restorative procedure.

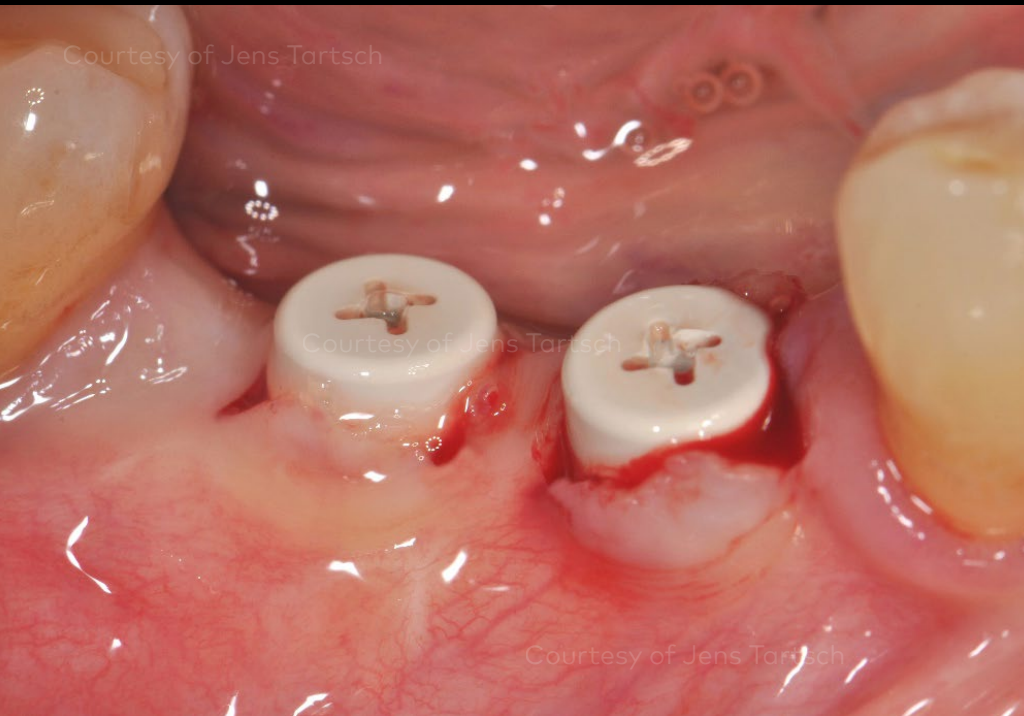
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Re-entry after 3 months for placement of two NobelPearl Healing Abutment Inter-X, with a small roll flap.

Soft tissue two weeks after re-entry.

Initial clinical situation

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Outcome



NobelPearl Impression Coping Open Tray Inter-X placed on implants and splinted for precision.

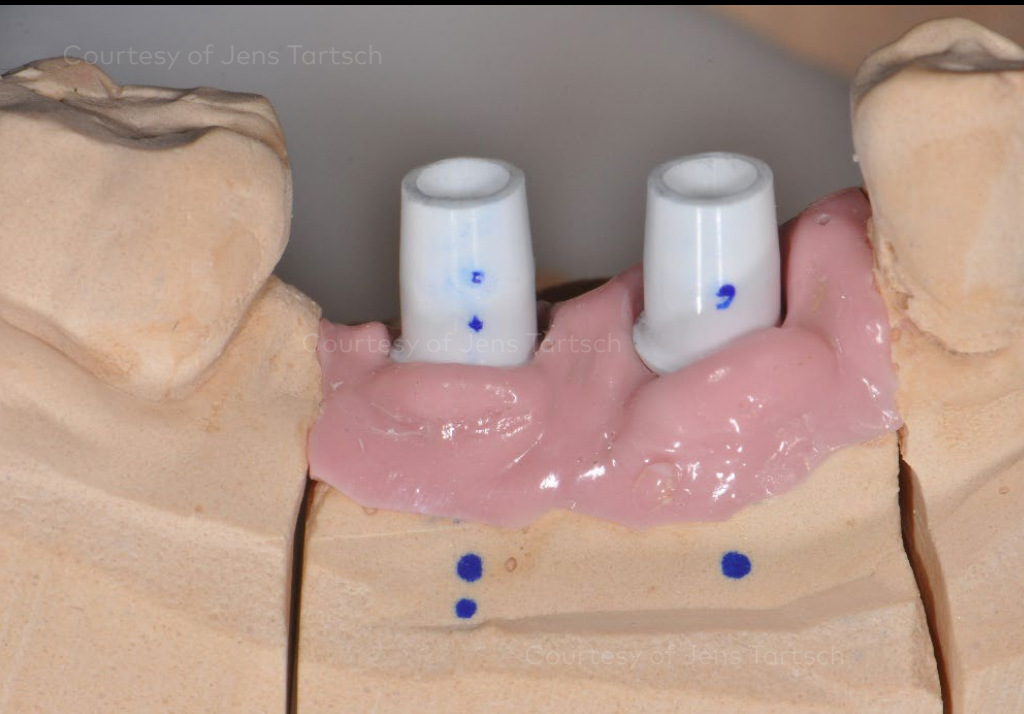
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NobelPearl Abutment Straight Inter-X placed on the master cast with gingiva mask.

Monolithic zirconia crowns placed on the master cast. For stability and because of the augmentation at position 45, the crowns are splinted.

Initial clinical situation

Treatment planning

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Outcome



Final restoration and abutments before insertion.

Initial clinical situation

Treatment planning

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Healthy and thick keratinized peri-implant mucosa seen following removal of the NobelPearl Healing Abutment Inter-X.

Try-in of the NobelPearl abutments.

Initial clinical situation

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The screw channels were sealed with Teflon, and abutments prepared for cementation.

Restorations cemented to the abutments.

Initial clinical situation

Treatment planning

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After cementation, Teflon can be removed through the screw channel.

The final restoration was taken out of the mouth for cleaning.

Initial clinical situation

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For the final installation of the restoration the VICARBO® screw is torqued at 25 Ncm and the screw channel is closed again with Teflon band.

Final restoration in situ after screw channel closure and sealing with composite to produce a 100% metal-free screw-retained restoration.

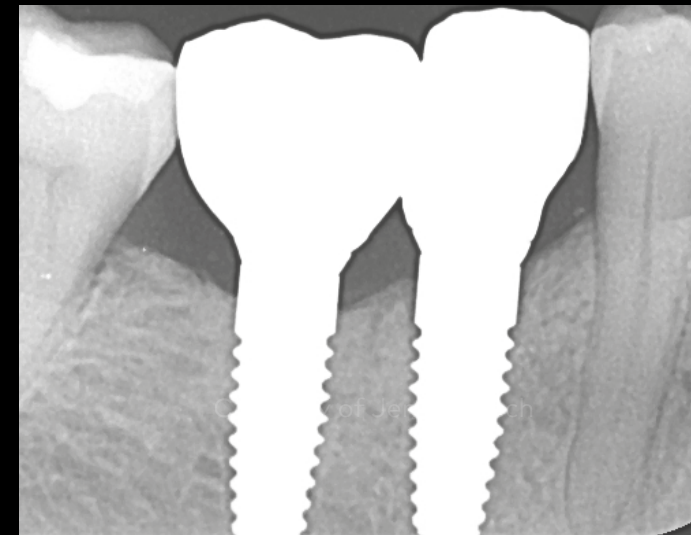
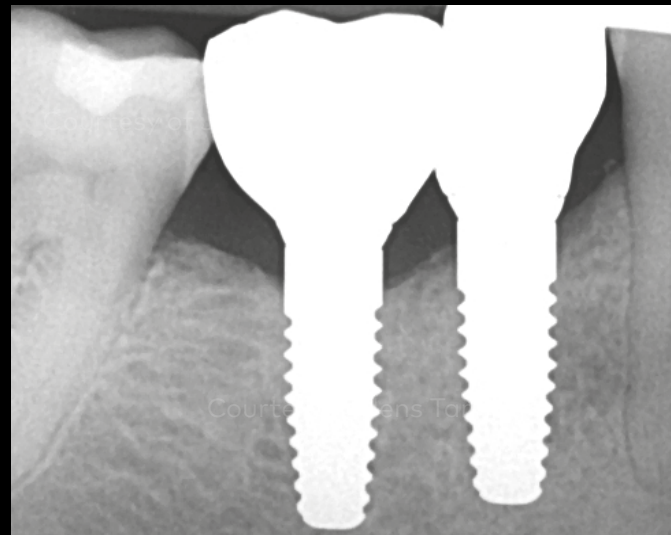
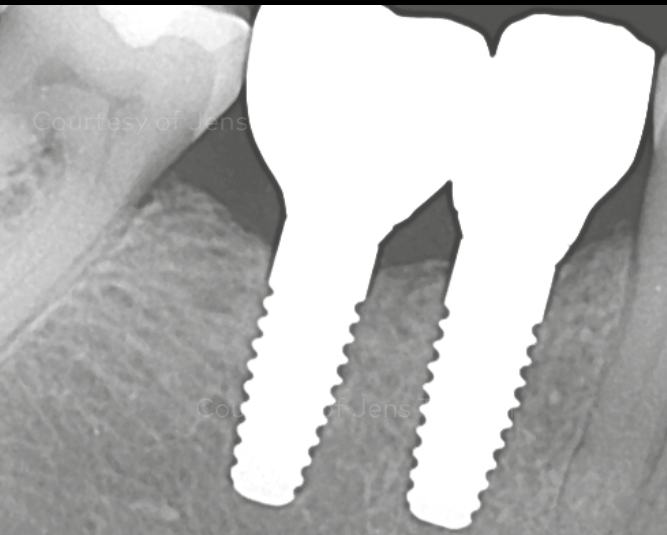
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X-ray control after delivery of restoration.

X-ray control 6 months after loading which shows a stable bone level.

1-year follow-up which shows stable bone and even bone gain.

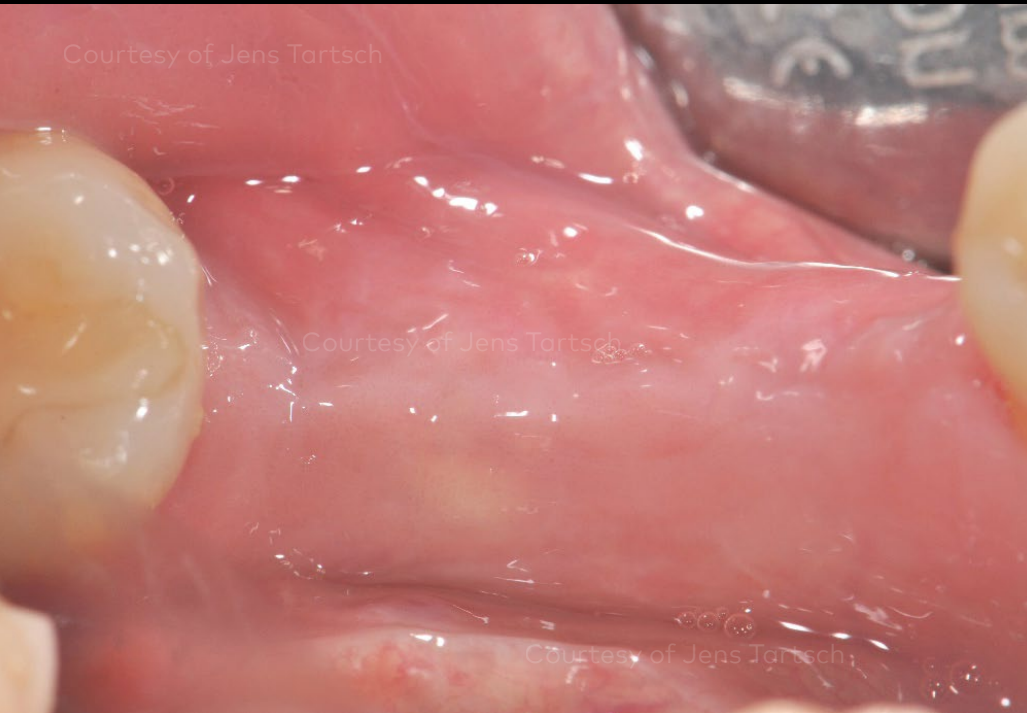
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Before treatment.

Excellent esthetic outcome at 1-year follow-up.
Note the healthy soft tissue and natural looking prostheses.

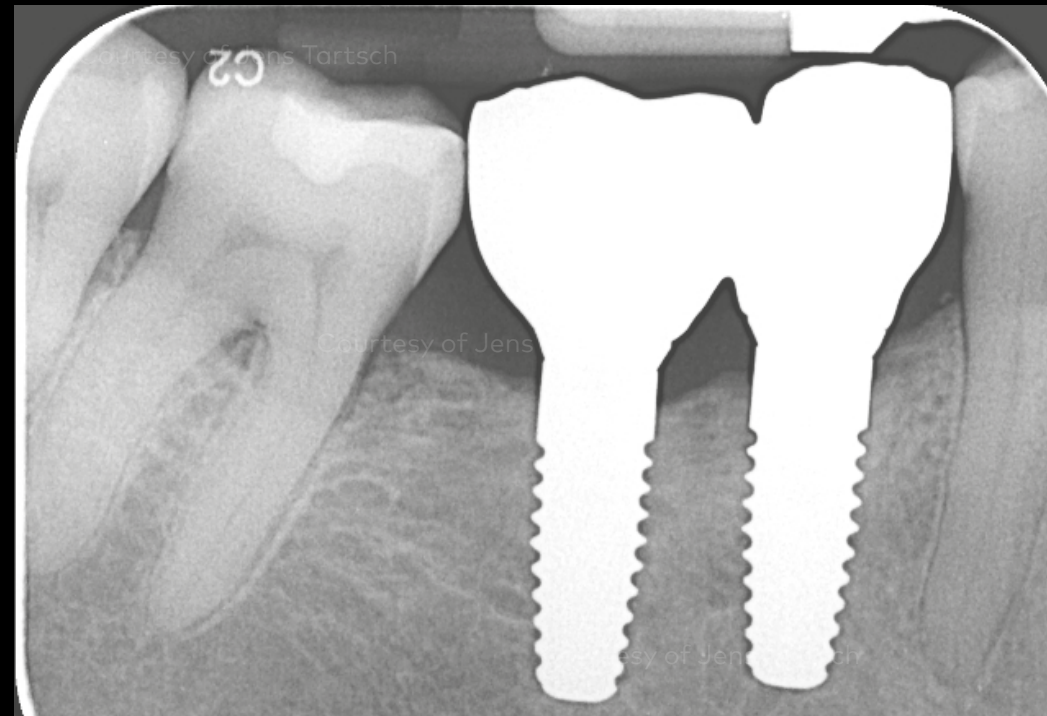
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Marginal bone stability and great soft tissue response at 4.5-year follow-up.

Case courtesy of Dr. Jens Tartsch



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For more information, please check the Nobel Biocare Instructions for use for [NobelPearl™ Tapered Dental Implant System](#)