

Immediate implant placement in the posterior



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“Immediate implant placement after molar extraction can be challenging. Combining cutting-edge digital technology for planning guided surgery and an implant offering high primary stability seems to be the key to obtaining a reliable result. Our experience with NobelParallel CC for these indications was that Intra-septal stabilization can be achieved predictably with high torque values. This is the first step to success.”



Patient:

Female
26 years old

Tooth position:

Maxillary 1st molar

Surgical solution:

NobelParallel CC RP 4.3 x 11.5 mm
Guided Surgical Template
Xenograft bone substitute

Restorative solution:

Cement retained ceramic crown - IPS e.max®
CAD crown by NobelProcera is cemented to a
NobelProcera Titanium Abutment

Surgery date:

September 26, 2014

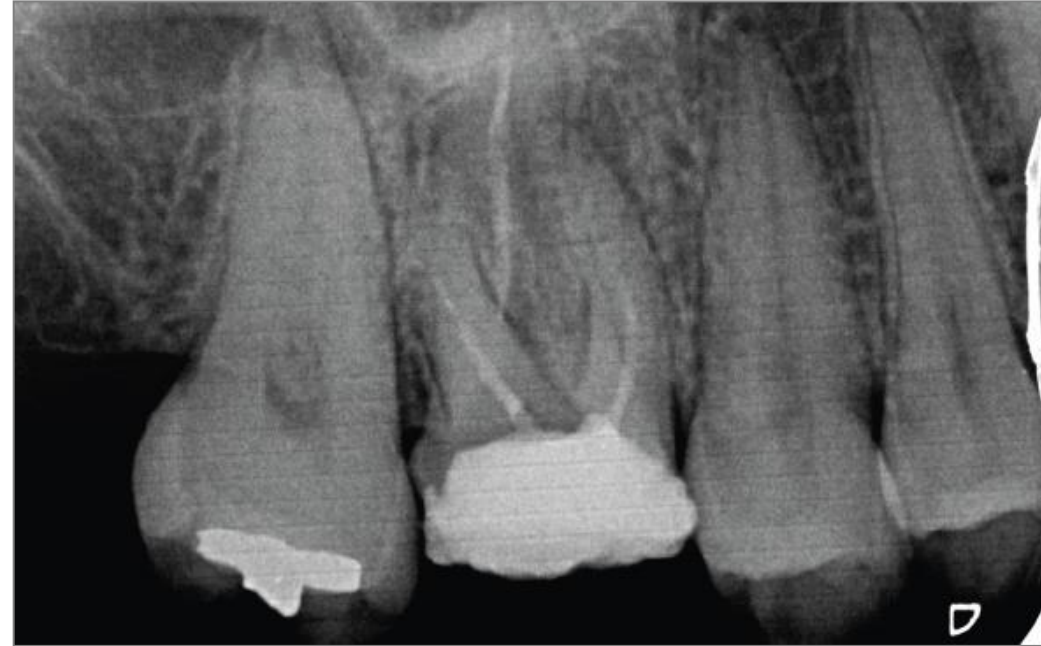
Total treatment time:

4 months

Initial situation

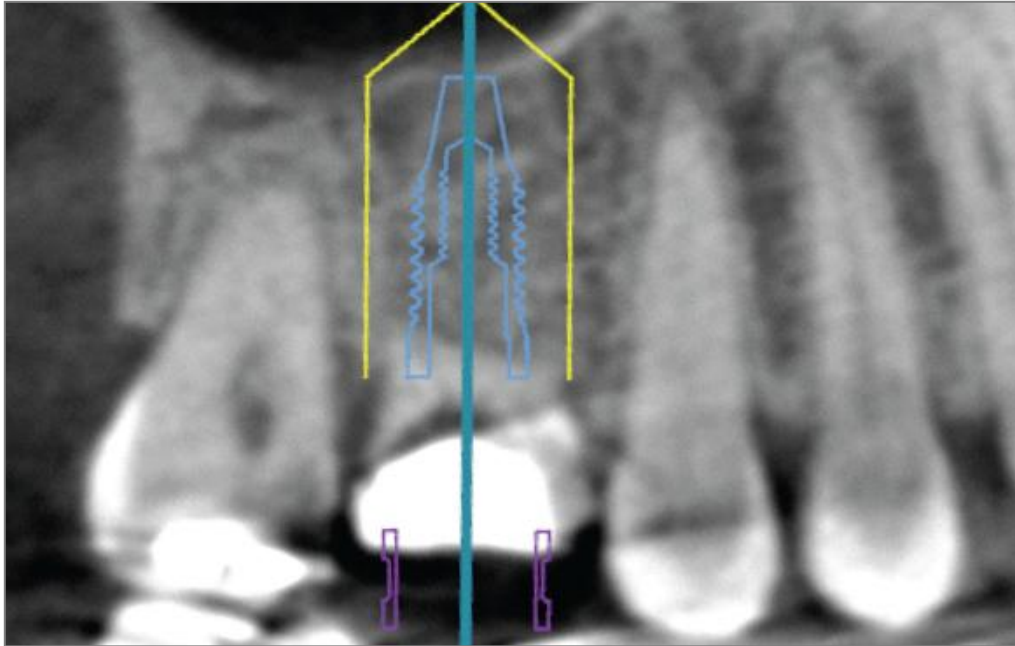


Upper first molar is heavily infected and needs to be extracted.

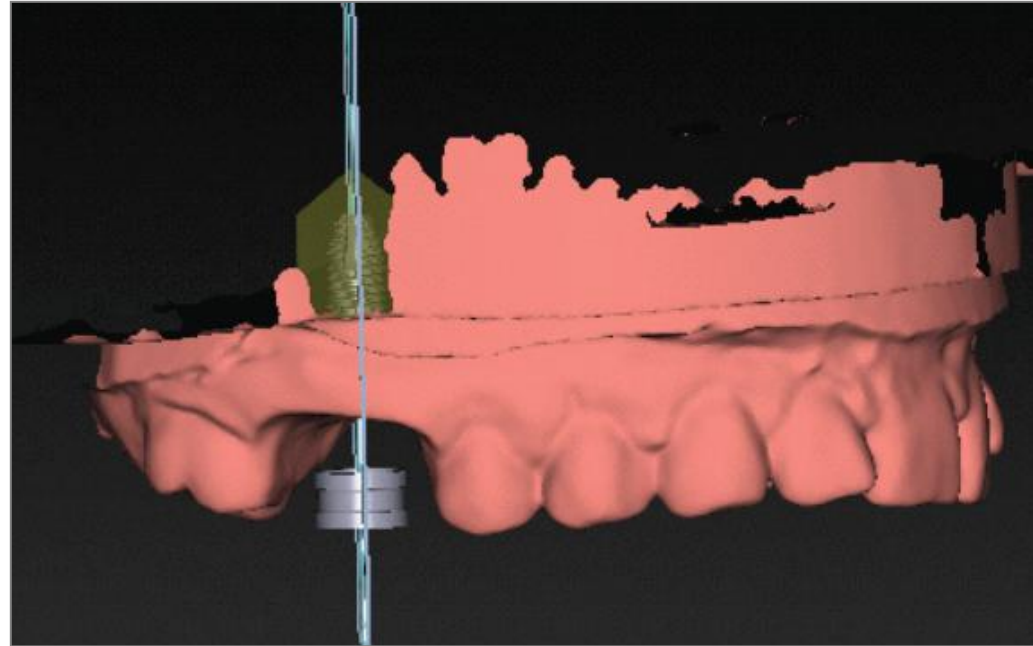


X-ray shows that the decay extends up to the furcation. Endodontic consultation revealed fracture in the palatal root. The tooth cannot be preserved.

Treatment planning

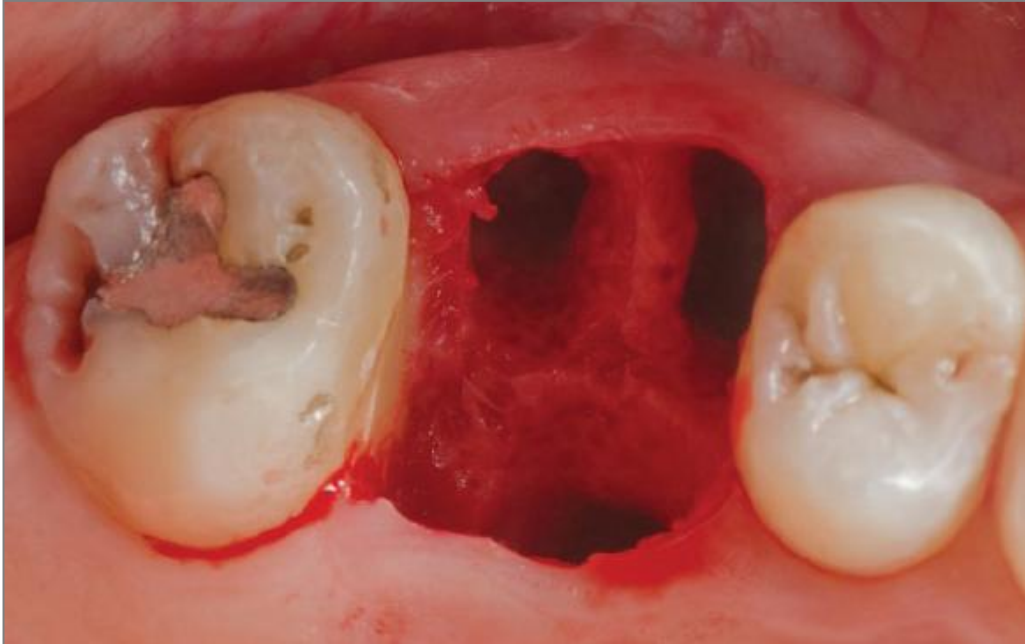


CT scan is imported into the NobelClinician Software and implant treatment is planned.



The patient model is scanned using the NobelProcera 2G Scanner and imported to the NobelClinician Software using SmartFusion technology.

Tooth extraction

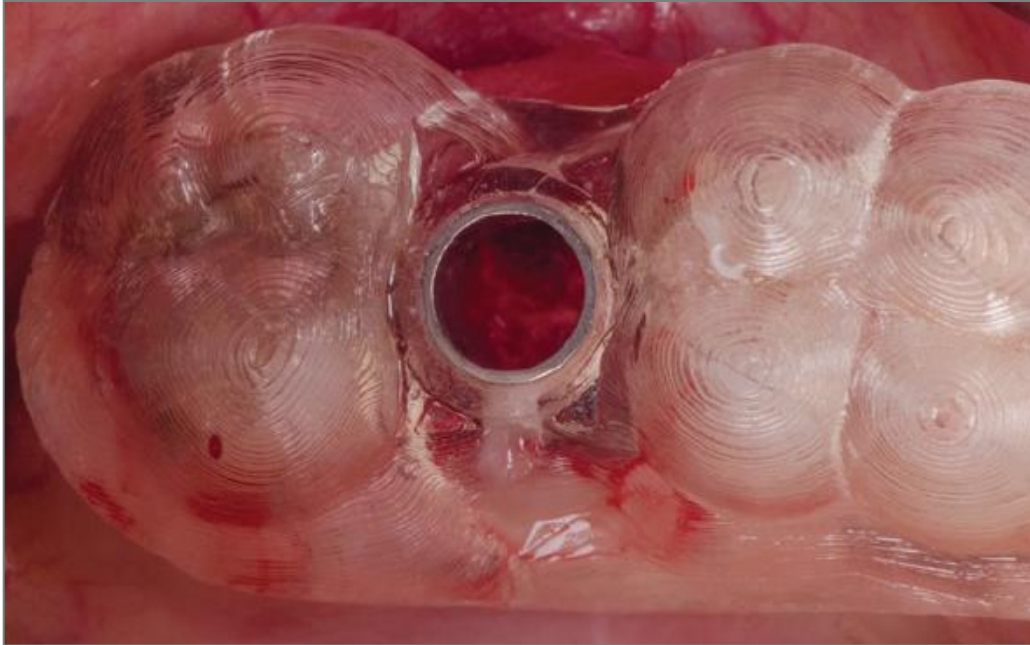


The tooth is extracted atraumatically. The septal bone is intact and can be used for implant anchorage.

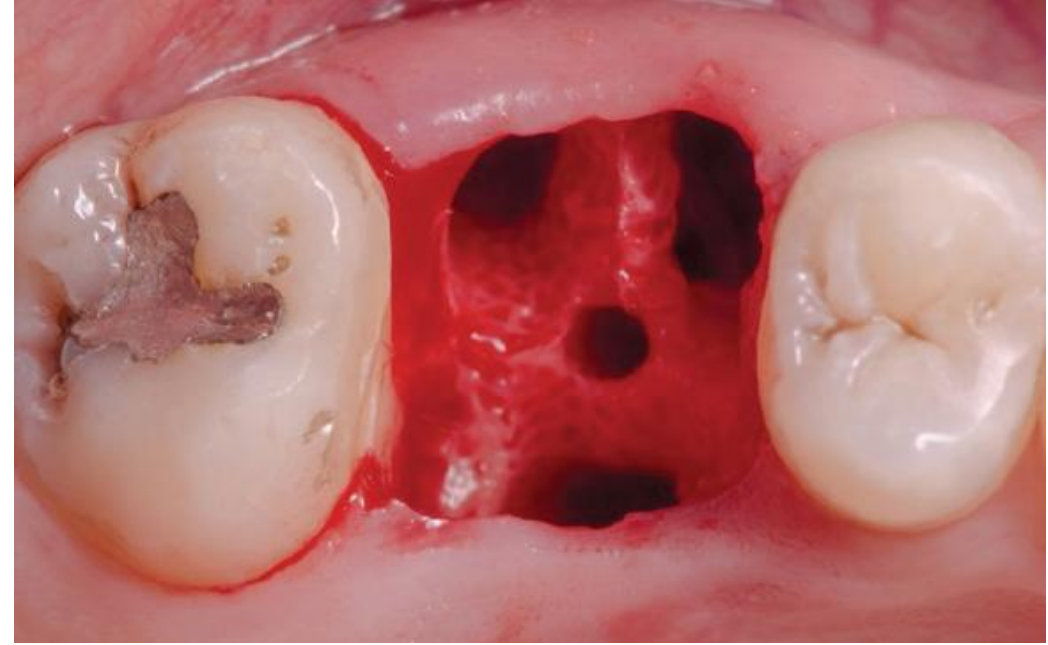


Preoperative X-ray shows that the extraction is complete and the septal bone is intact.

Initial pilot drilling

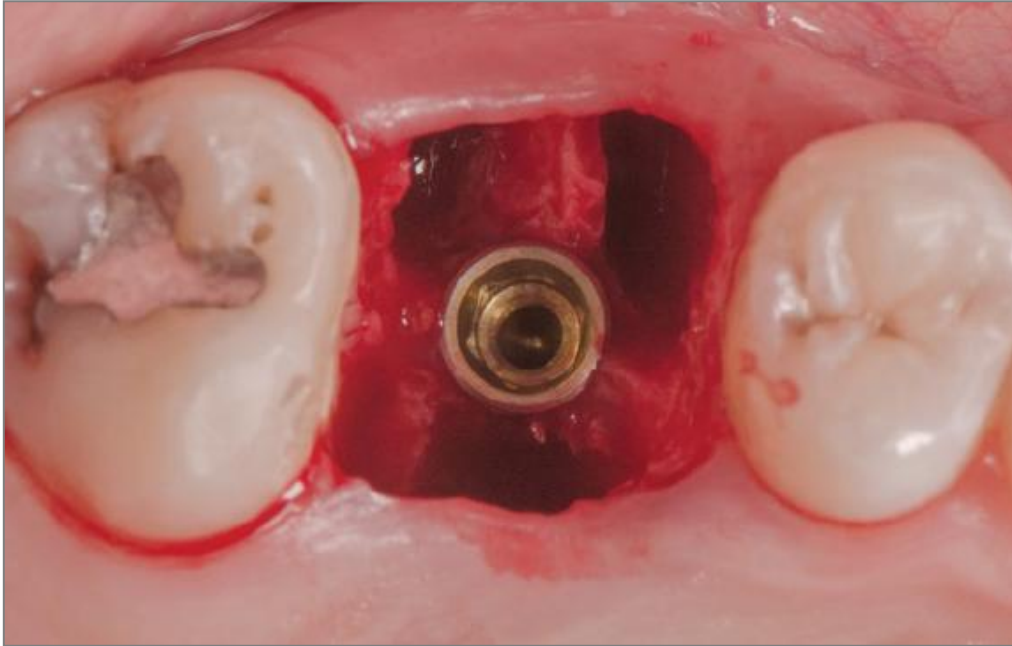


The NobelGuide Surgical Template tried in the patient's mouth shows excellent fit.

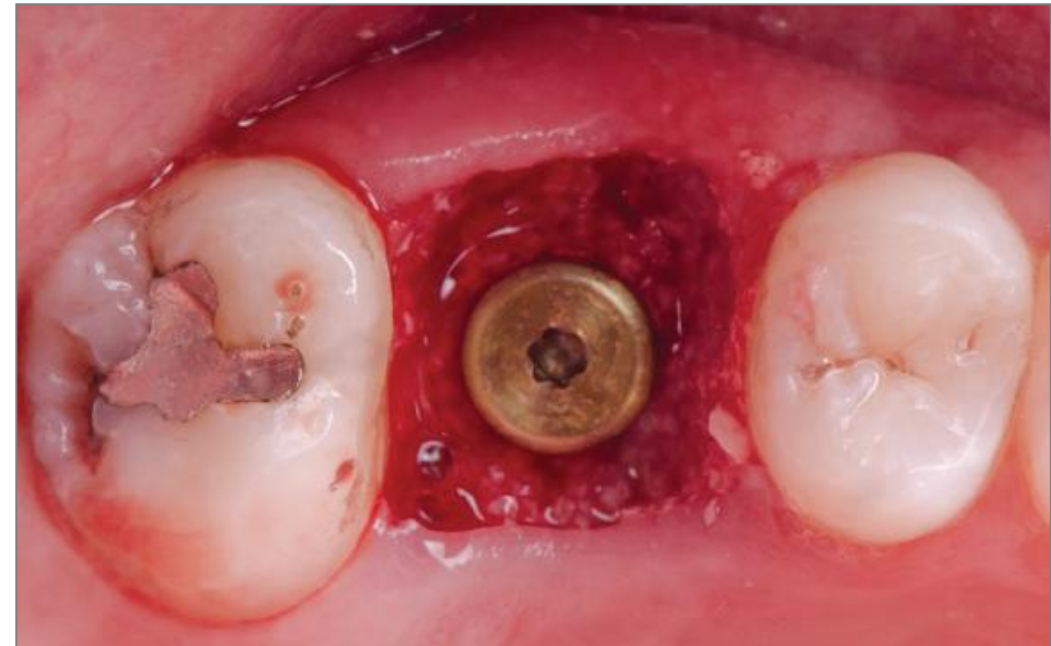


Initial drilling with the Twist Drill 2.0 mm following the standard drill protocol. The NobelGuide Surgical Template is used to help ensure an optimized implant position.

Immediate implant placement

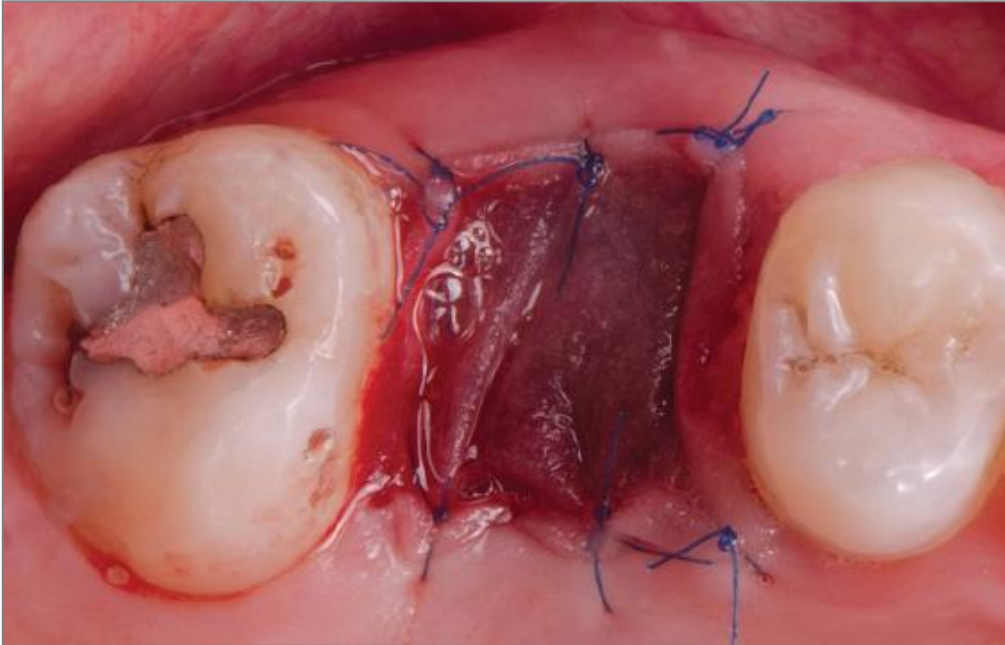


Once the drilling protocol is completed the implant is placed in the planned position using the NobelGuide Surgical Template.



A Nobel Biocare Healing Abutment is placed for soft tissue contouring. Xenograft material is packed around the implant.

Site closure



The site is covered by a resorbable membrane and left to heal for three months.



X-ray shows correct position of the implant with the 3 mm Healing Abutment in place.

Tissue healing



Soft tissue after three months of healing.



Soft tissue contour after removal of the Healing Abutment. An impression can be taken for production of the final abutment and crown.

Final restoration



Lateral view of the final crown in place. An IPS e.max[®] CAD crown by NobelProcera is cemented to a NobelProcera Titanium Abutment to support the crown with the desired transgingival emergence profile.



Radiographic picture four months after surgery showing the final crown in place.