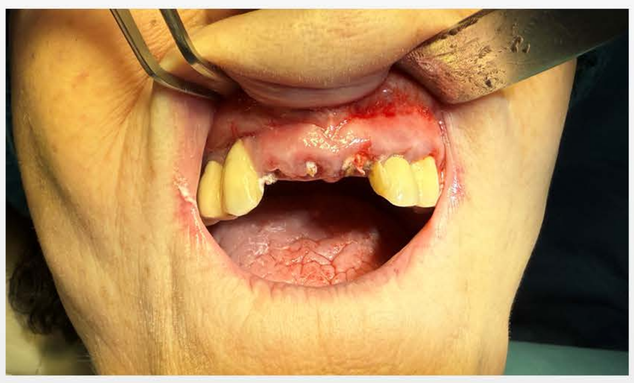
Immediate Implantation and Loading in the Anterior Maxilla Using NeoBiotech Implants: A Clinical Case Report

Dimitri Gogoladze MD

Introduction

Immediate implant placement and loading in the anterior maxilla present both functional and aesthetic challenges, especially in elderly patients. Advances in implant design, surface technology, and digital workflows have improved the predictability of these procedures. This case report demonstrates a fully digital, immediate-loading approach using NeoBiotech implants following atraumatic extraction of compromised teeth in the aesthetic zone.



Case Description

A 70-year-old female patient presented with functional and aesthetic complaints. Clinical and radiographic evaluation revealed a damaged metal-ceramic bridge in the anterior maxilla.

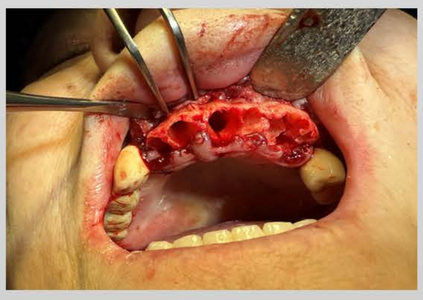
A CBCT scan was performed, confirming bone volume adequate for immediate implantation. The treatment plan included extraction of teeth #13, 12, 11, 22, and 23, followed by immediate implant placement and provisional restoration.

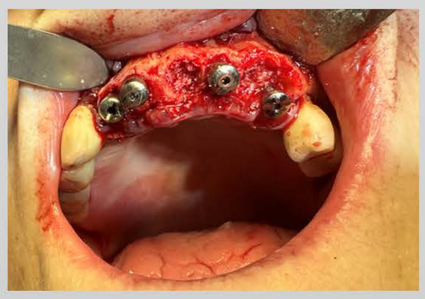
Surgical Procedure

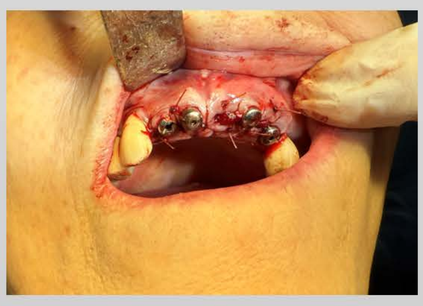
Extractions were performed atraumatically using piezosurgical and rotary instruments to preserve alveolar integrity.

Immediately after extraction, four NeoBiotech dental implants were placed in the positions of #13, 11, 21, and 23. Xenograft material was used to fill minor gaps between the implant surface and socket walls. Gingival formers were installed to shape the soft tissue.

Primary stability was assessed using the AnyCheck device, revealing high stability values suitable for immediate loading. The surgical sites were sutured using interrupted technique, ensuring minimal tension and optimal wound closure.







Prosthetic Phase

Five days post-surgery, a temporary prosthesis was fabricated and delivered following a fully digital workflow, including intraoral scanning and CAD/CAM design.

The patient reported excellent comfort and aesthetics. A follow-up CBCT and final restoration are planned after four months to assess bone integration and soft tissue maturation.

Conclusion

Immediate implant placement and loading in the anterior maxilla using NeoBiotech implants demonstrated:

- Excellent primary stability
- Preservation of soft tissue contour
- Favorable early healing response

This digital, minimally invasive protocol provided both functional and aesthetic success, supporting the reliability of immediate-loading protocols with NeoBiotech implant systems.

Discussion

Immediate implantation and loading protocols depend on precise surgical technique, high primary stability, and patient-specific anatomical conditions.

In this case, the combination of atraumatic extraction, NeoBiotech implant macrodesign, and digital planning facilitated a predictable outcome. The use of the AnyCheck device allowed objective confirmation of stability before immediate loading.

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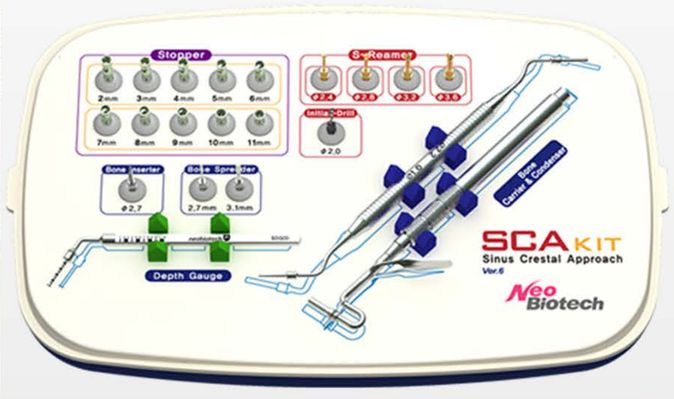
Sinus Floor Elevation
Using the SCA Kit and NeoBiotech Implants: A Clinical Case Report

Dimitri Gogoladze MD

Introduction

Implant placement in the posterior maxilla is often limited by reduced bone height caused by sinus pneumatization and alveolar bone resorption. Sinus floor elevation is a predictable technique to increase vertical bone volume and enable successful implant placement.
The SCA Kit allows a minimally invasive transcrestal approach, while NeoBiotech implants provide reliable primary stability. This clinical case report presents the application of sinus floor elevation using the SCA Kit in conjunction with NeoBiotech implants, highlighting surgical protocol and clinical results.



Surgical Procedure

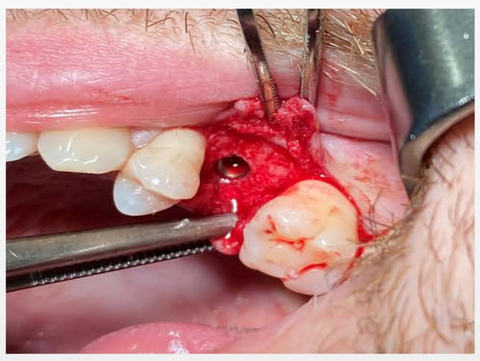
Local anesthesia was administered and a minimally invasive crestal incision was performed. The osteotomy site was prepared using the SCA Kit with a transcrestal approach, allowing controlled sinus floor elevation while minimizing trauma to the surrounding tissues.
Sequential SCA instruments were used to gently elevate the Schneiderian membrane without perforation. Bone graft material was introduced through the osteotomy, followed by simultaneous placement of NeoBiotech implants with adequate primary stability.

Discussion

Use of the SCA Kit enables controlled and gradual elevation of the Schneiderian membrane, improving procedural safety and patient comfort. This approach is associated with reduced operative time, less postoperative pain and swelling, and faster soft tissue healing, making it a predictable option in cases with limited residual bone height.
NeoBiotech implant macrodesign, and digital planning facilitated a predictable outcome. The use of the AnyCheck device allowed objective confirmation of stability before immediate loading.

Case Description

A 26-year-old male patient presented with a missing tooth #2.5 for more than two years. Clinical and radiographic examination revealed reduced vertical bone height due to sinus pneumatization, with approximately 6 mm of residual alveolar bone available at the implant site. Based on the anatomical conditions and prosthetic planning, it was decided to place a 4.0/10 NeoBiotech implant in this region in combination with a transcrestal sinus floor elevation using the SCA Kit.



Follow-Up and Outcomes

Postoperative healing was uneventful, with no clinical complications. Radiographic evaluation confirmed correct three-dimensional implant positioning and successful elevation of the sinus floor. At follow-up visits, the augmented bone demonstrated good volume stability, and the implant showed satisfactory primary stability and osseointegration, with healthy peri-implant soft tissues..

Conclusion

Transcrestal sinus floor elevation using the SCA Kit, proved to be a predictable and minimally invasive solution for managing reduced posterior maxillary bone height. The technique enabled safe membrane elevation, stable bone augmentation, and correct implant positioning. Follow-up evaluation demonstrated stable augmented bone volume and successful early implant integration, supporting the effectiveness of this approach in appropriately selected cases

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