

GUIDED LATERAL SINUS LIFT WITH SIMULTANEOUS IMPLANT PLACEMENT:

CASE SERIES



UAB
SCHOOL OF
DENTISTRY


Academy of
Osseointegration

INTRODUCTION

Lateral sinus lift is a surgical technique to increase the bone height in the posterior maxilla to facilitate implant placement.

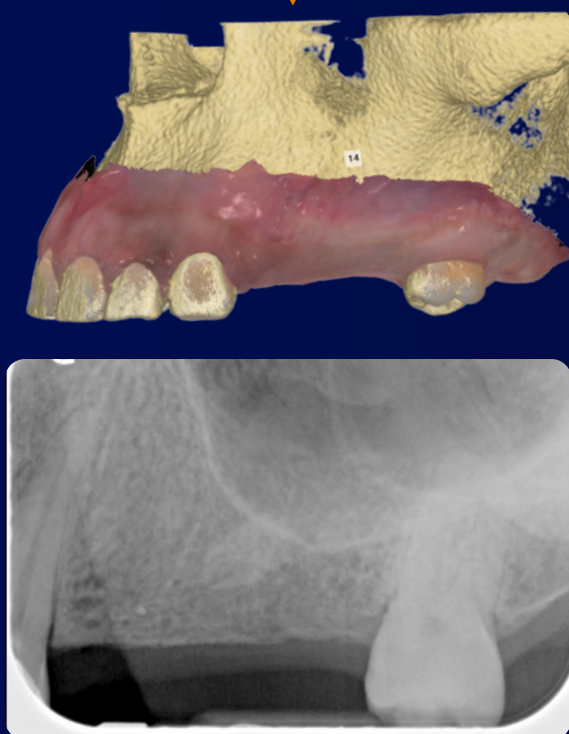
CHALLENGES

- Navigating around large sinus septa and reduce the risk of sinus perforation.
- Avoiding damage to prominent maxillary artery branches.
- Managing proximity to neighboring teeth.
- Ensuring sufficient extension of the surgical window.
- Aligning the window with the intended implant locations.

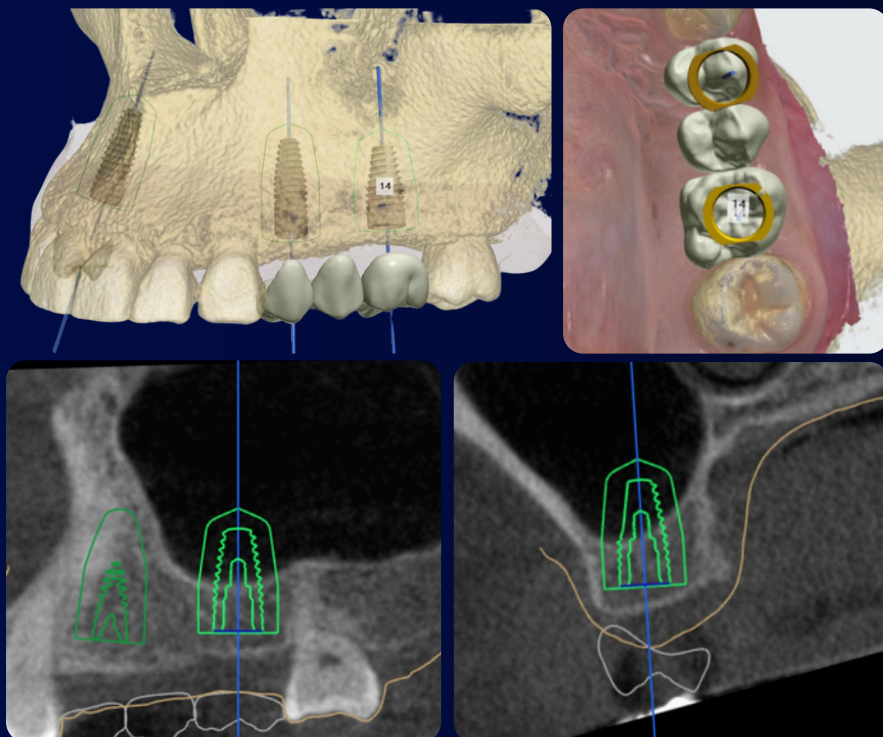
PURPOSE

This report presents a case series demonstrating sinus floor elevations using a lateral window approach (LSFE) conducted with surgical guides for the lateral window osteotomy along simultaneous implant placement.

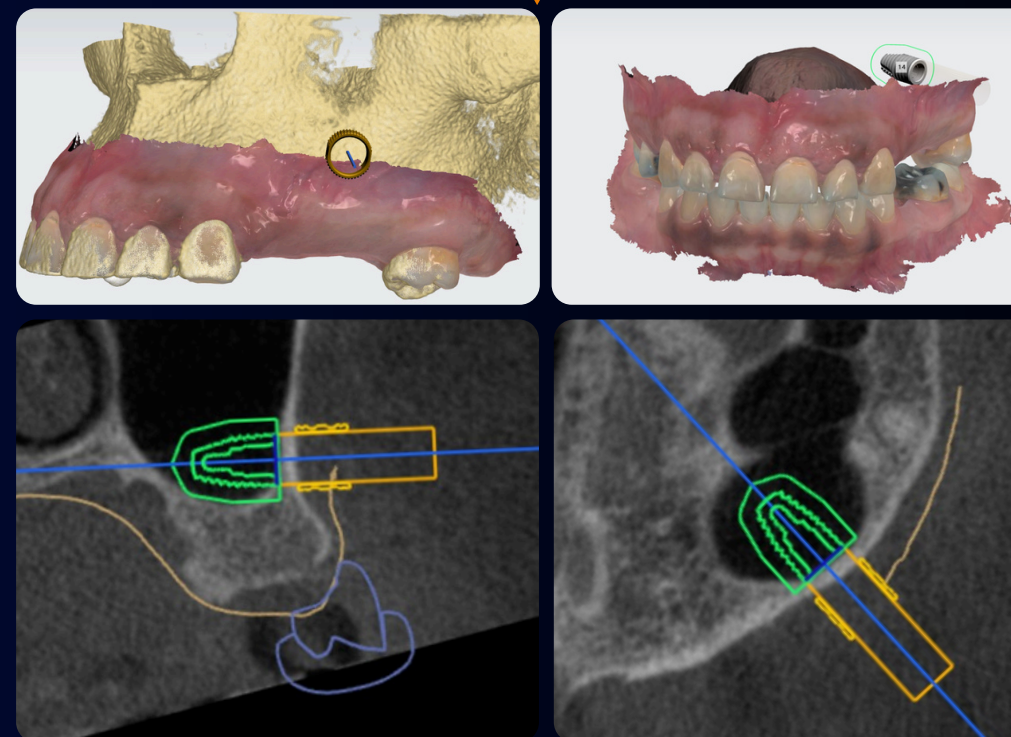
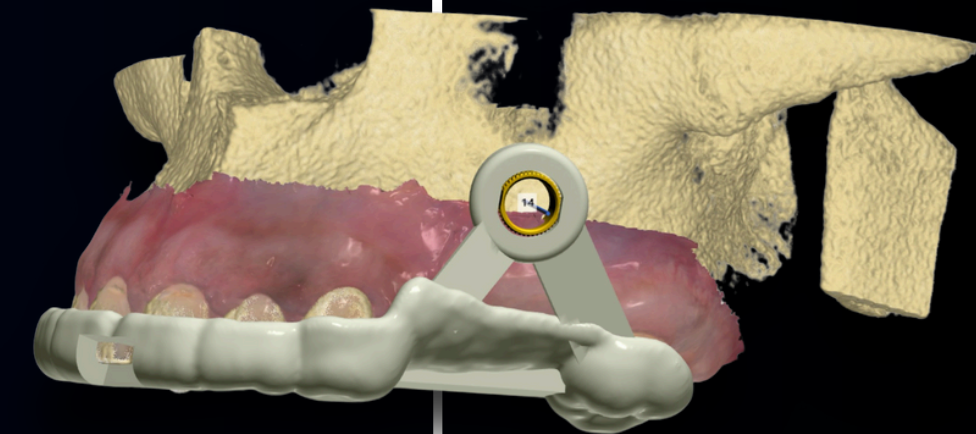
Preoperative
CBCT evaluation
and planned
implant position



Plan implant position
on 3Shape



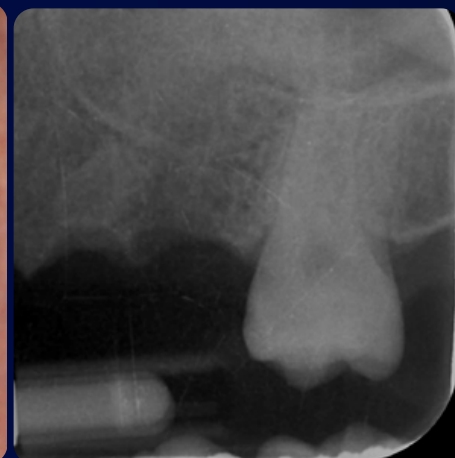
Window is determined by an
implant placed into the sinus
to create the desired pathway
at the lateral sinus wall.



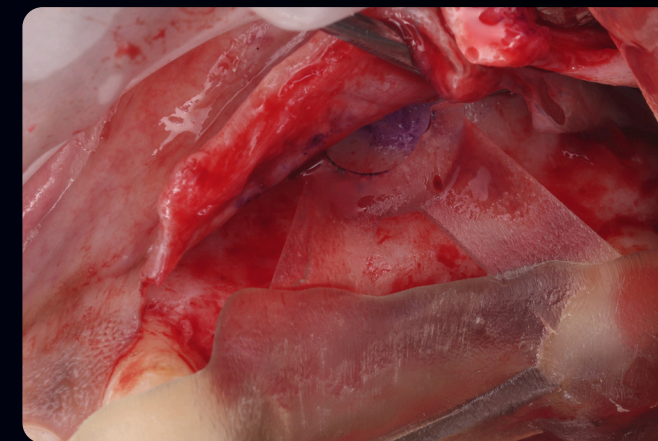
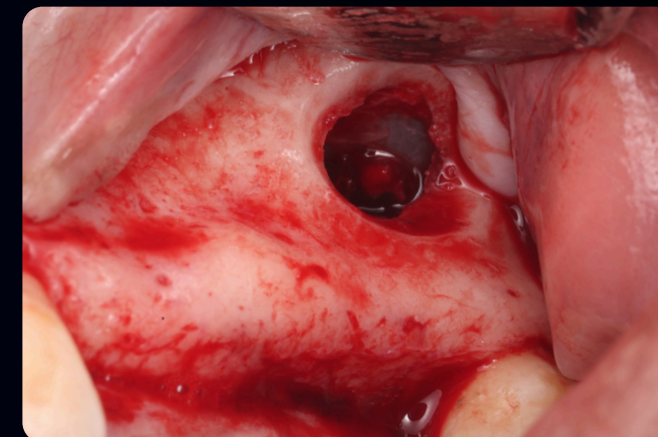
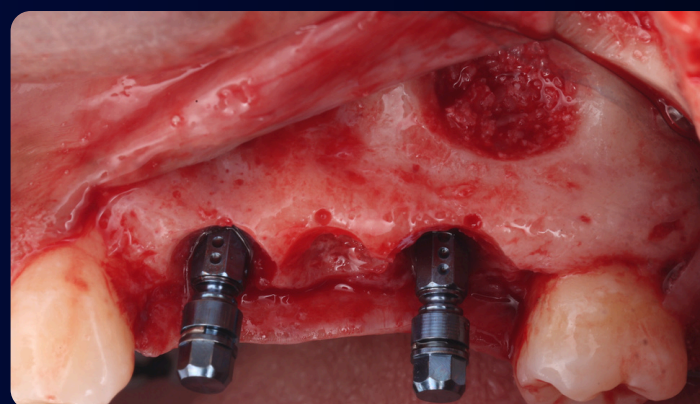
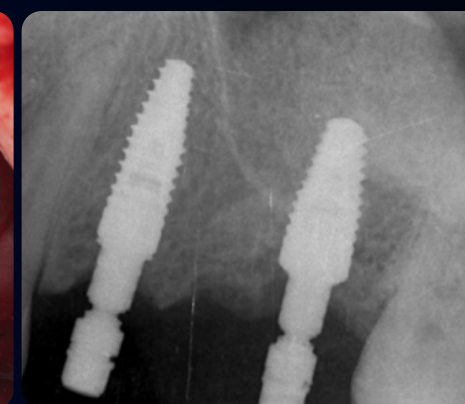
3D Printed Guide dental supported.



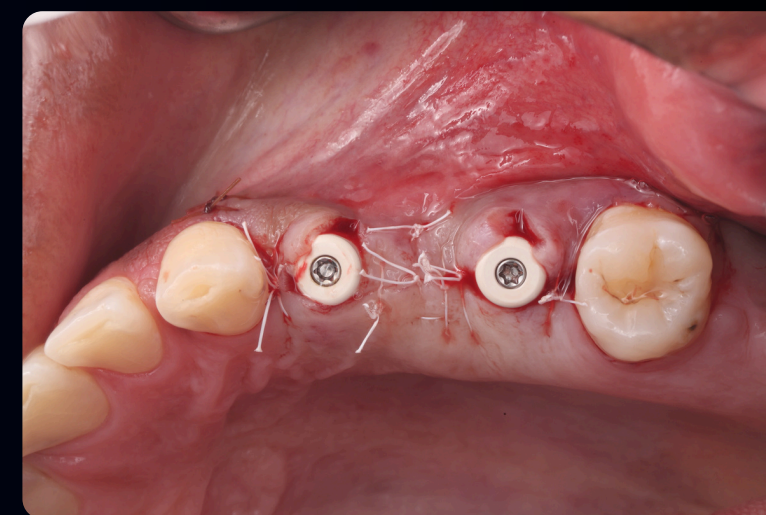
Sinus is grafted using bone substitute and PA is taken to evaluate.



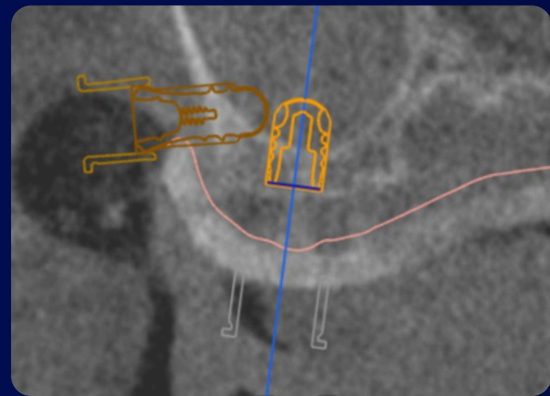
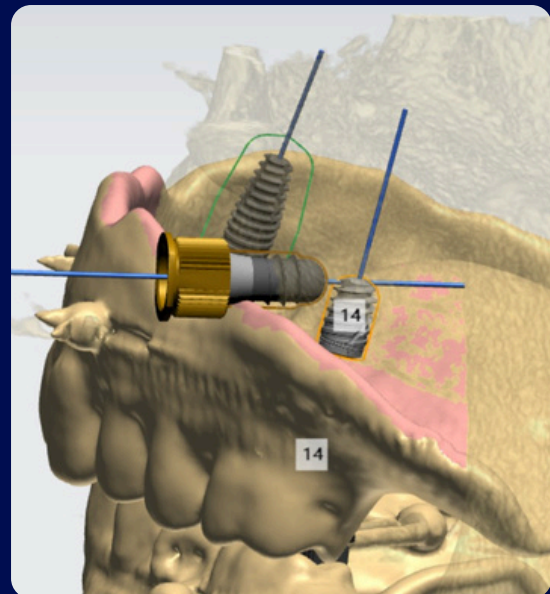
The sinus window is drawn using a brush. The osteotomy of sinus lateral window is done. The Shenaidarian membrane is intact and vital structures avoided.



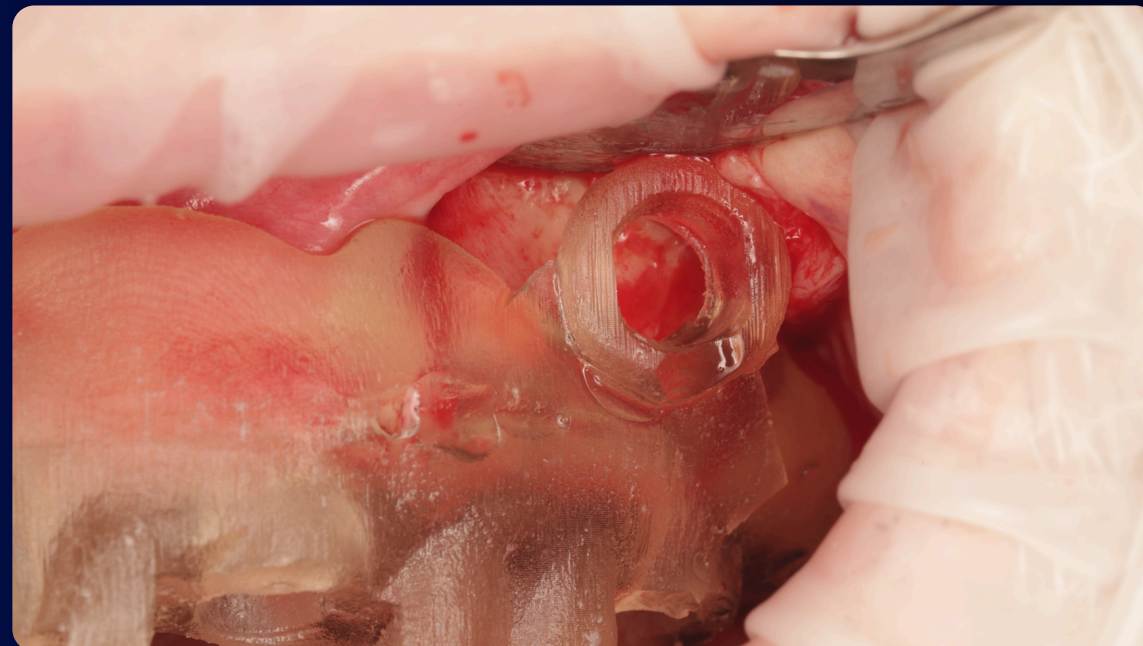
Implants placed and PA taken to confirmed the right placement and the sinus filled with bone



Implant placement and the flap closure.

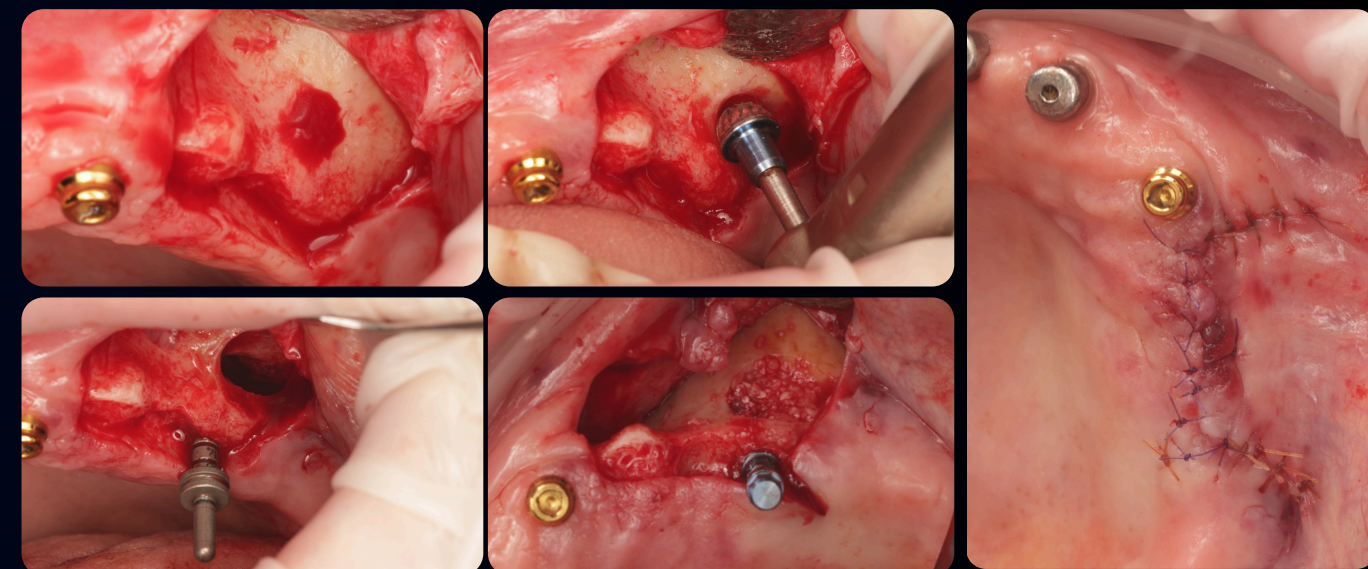
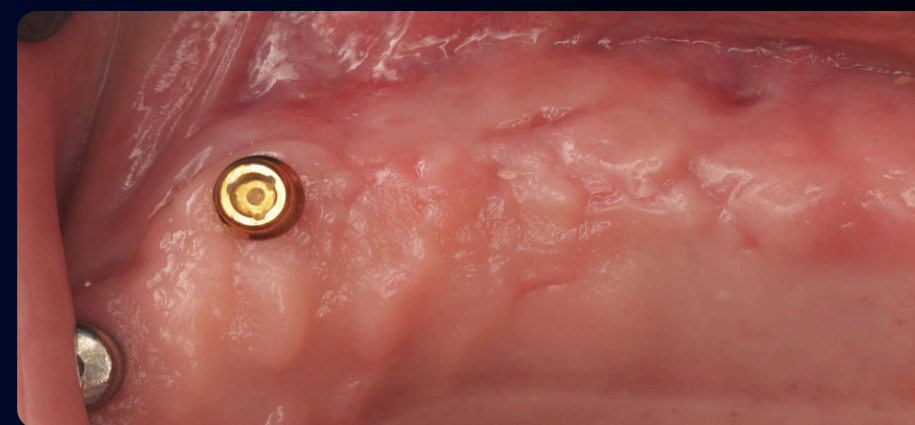


Digital planing on 3Shape. A distal view showing the implant positioning on the 3 shape to demark the corret position of the window.

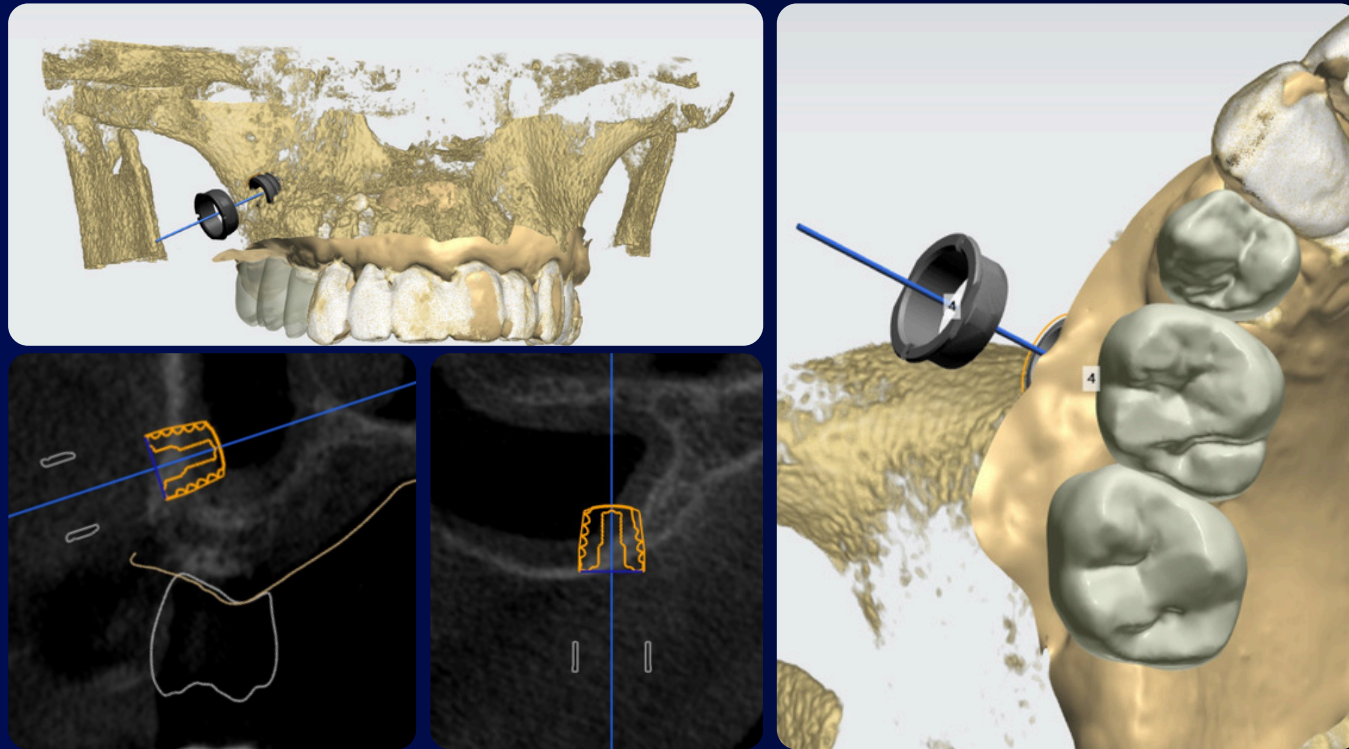
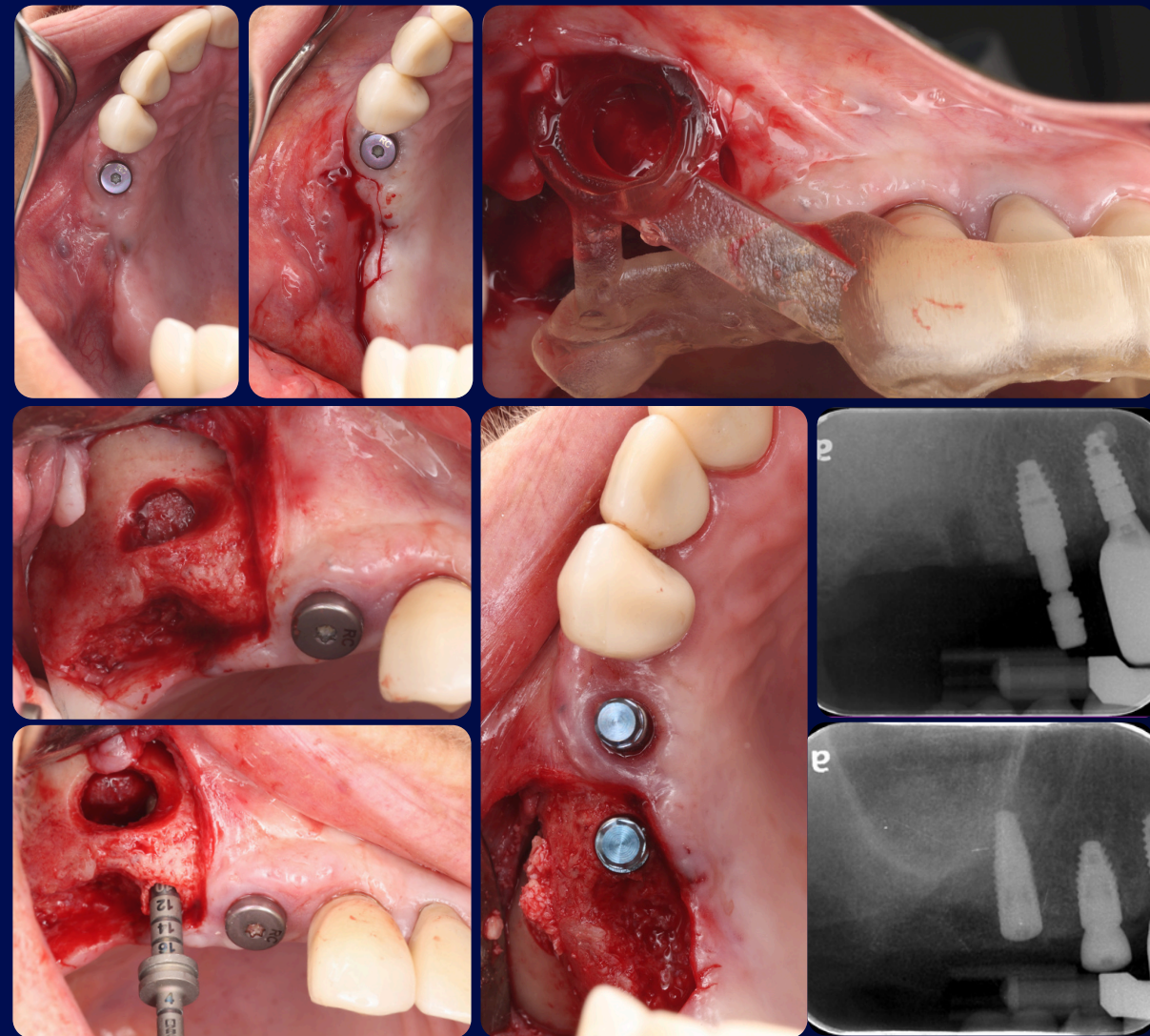


Exist denture of the patient was duplicated and the lateral guided for the sinus lift was add to the denture flange.

The lateral window was demarked using the bur gently. Lateral window was access, the implant osteotomy was done, sinus was filled with bone substitute, implant was placed, then the flap was repositioned and sutured.



Result after 2 weeks of post-op.



BENEFITS:

- Improve precision in window localization and preparation.
- Guides simplify access to the sinus cavity.
- Avoid damage the Alveolar Antral Artery and sinus septa.

DRAWBACK:

- Extensive mucoperiosteal flap elevation for proper guide placement

CONCLUSION:

This innovative digital surgical guide for lateral sinus lift allows for precise planning and execution of the osteotomy window, enhancing accuracy and reducing the risk of intraoperative complications. By improving predictability and control, this approach contributes to safer, more efficient outcomes in sinus augmentation procedures.

REFERENCES:

