수평적 골 증대술을 동반한 위축된 상악 무치악 환자의 디지털 임플란트 수복 증례

서울대학교 SEOUL NATIONAL UNIVERSITY

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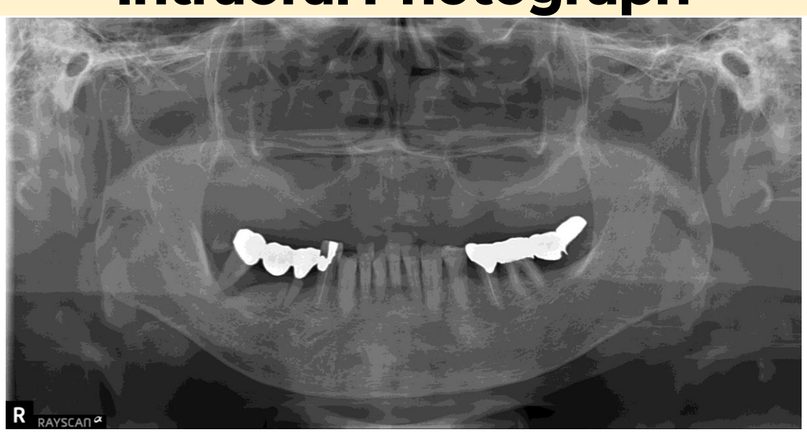
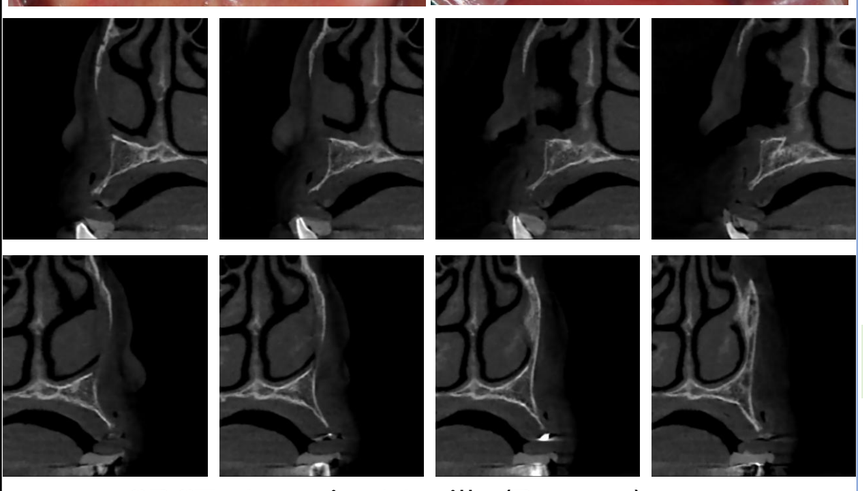
SIDEX 2025 Seoul International Dental Exhibition & Scientific Congress

Patient Information

- Age / Sex: 70Y / F
- PMH: Non-specific
- C.C: Want to restore missing teeth, but **can't use denture** because of severe **gag reflex**

Pre-operative Radiograph Intraoral Photograph





- CBCT : Anterior Maxilla (Pre-op.)

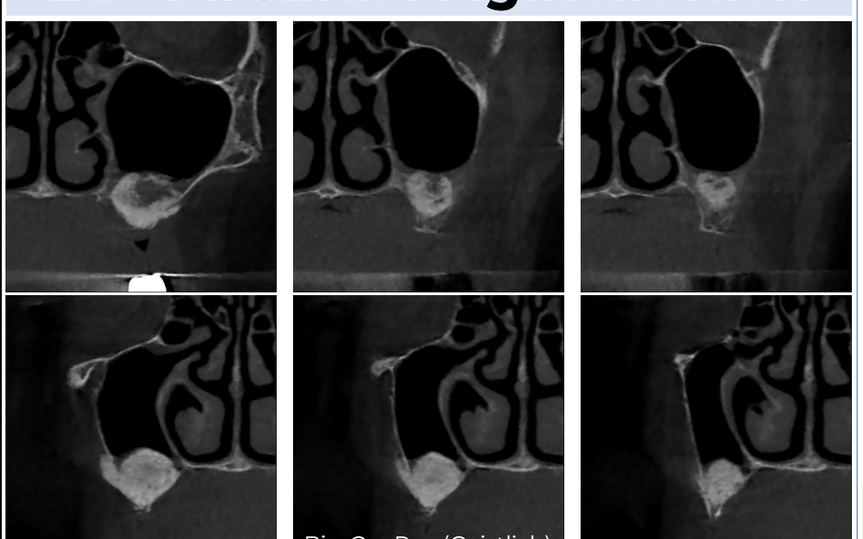
Treatment Plan

Mx.: Implant-supported Fixed restoration

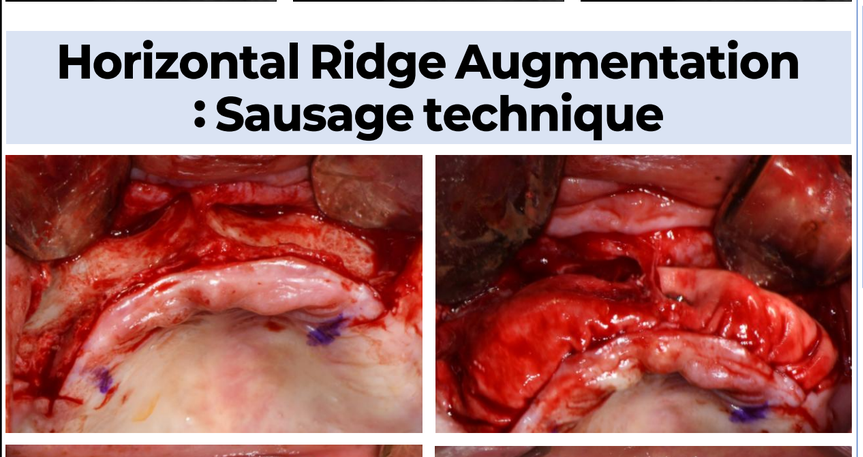
- **Lateral sinus augmentation (Both)**
- **Horizontal ridge augmentation (Anterior)**

Mn.: Implant-supported Fixed restoration [#46i-p-44i]

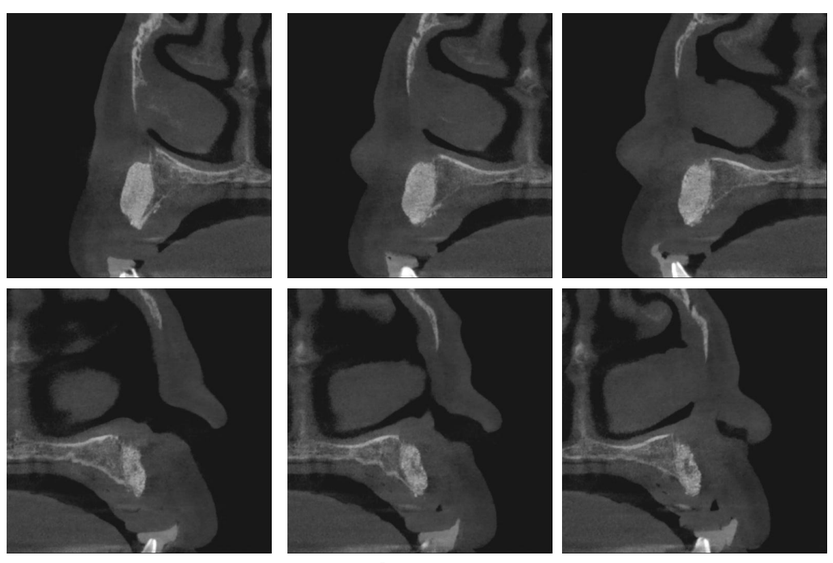
Lateral Sinus Augmentation



Horizontal Ridge Augmentation : Sausage technique

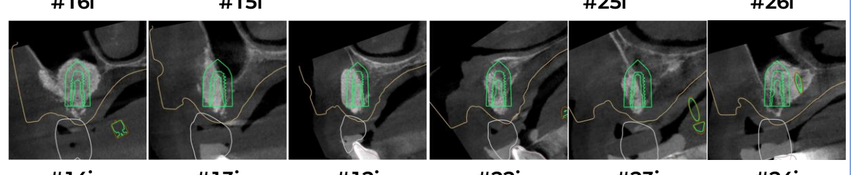


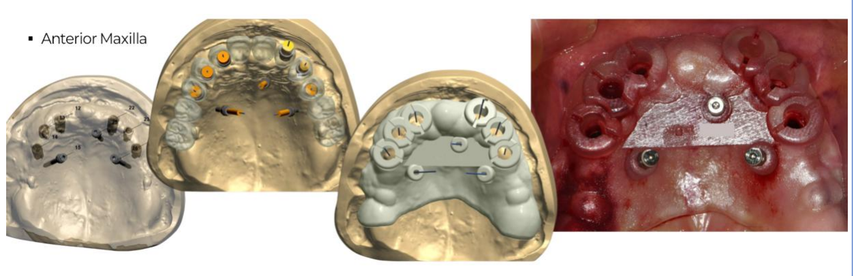
- Bio-Gide Compressed (Geistlich)
- Bone tack (Dentium)
- Bio-Oss Pen (Geistlich)

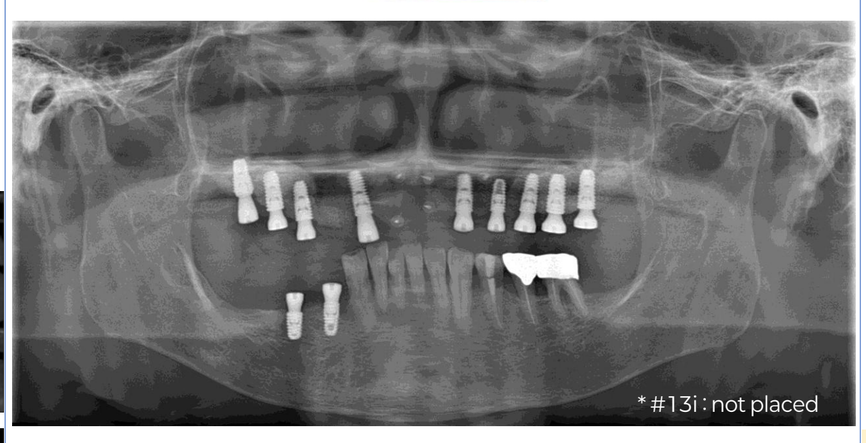


Post-op. **6 months** CBCT
- Anterior Maxilla

Digital Implant Planning



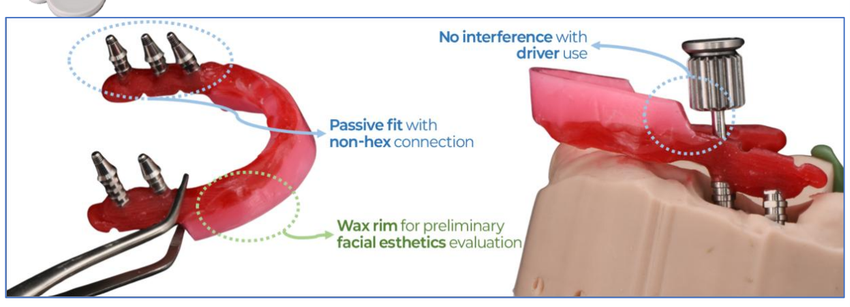




- TSIII SOI (Osstem)

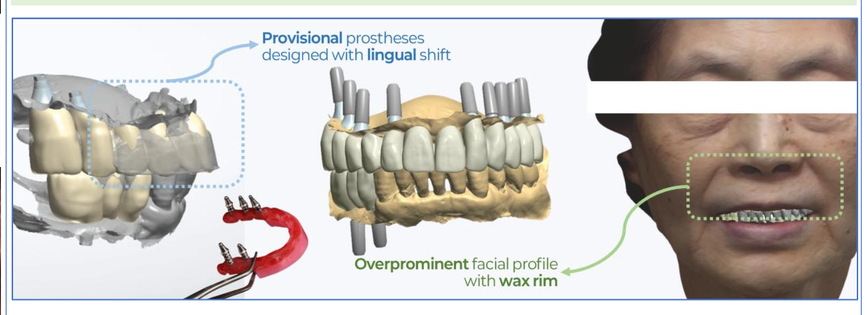
Jaw-relation recording

- Tentative vertical dimension registration

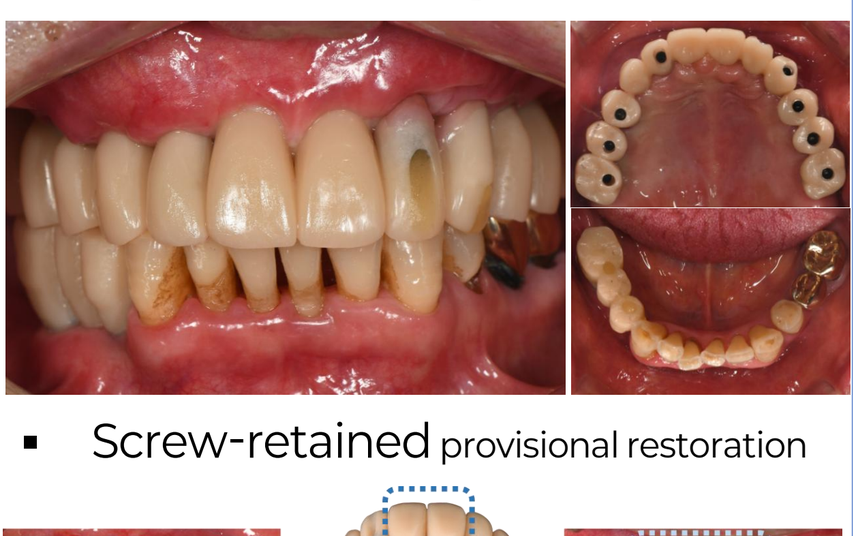


- Jaw-relation recording with bite jigs and wax rim.

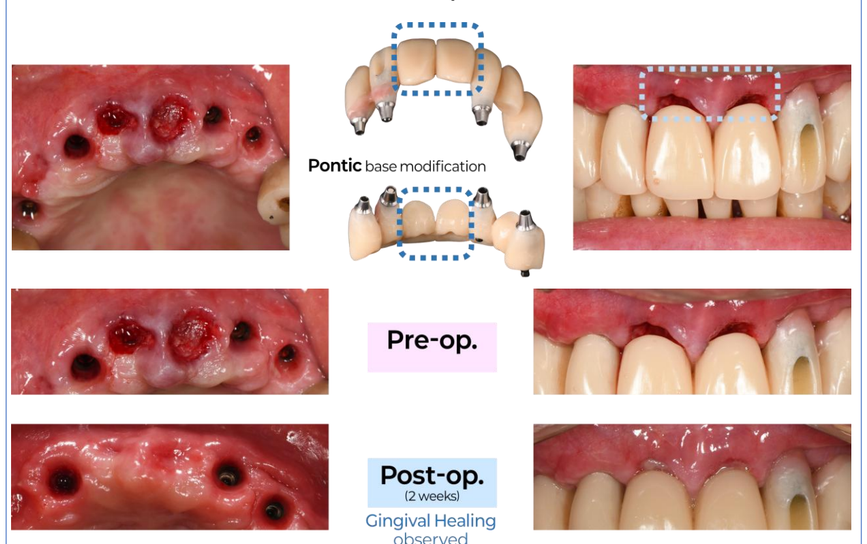
Provisional Restoration



- Facial scanning (Bellus 3D)
- Intraoral scanning (Medit i700)

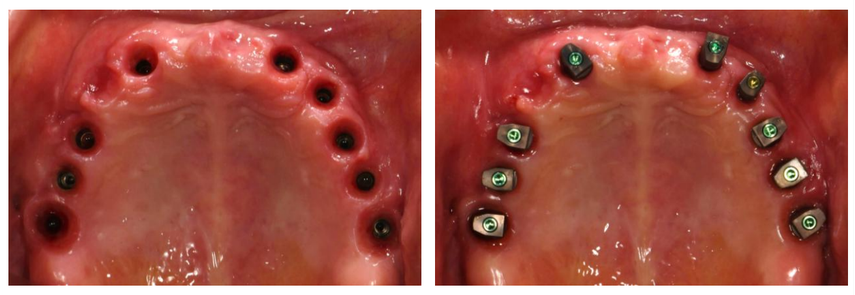


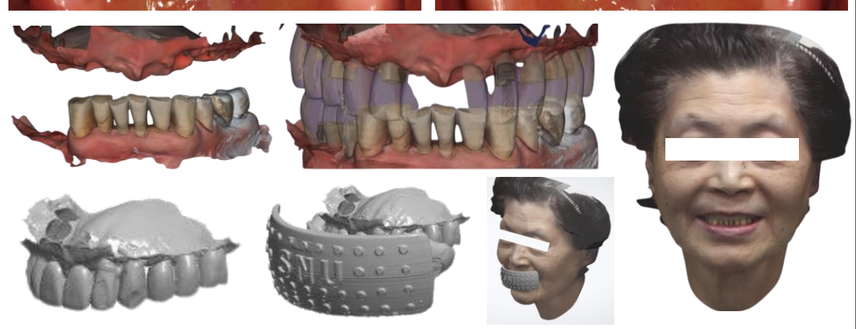
- Screw-retained provisional restoration



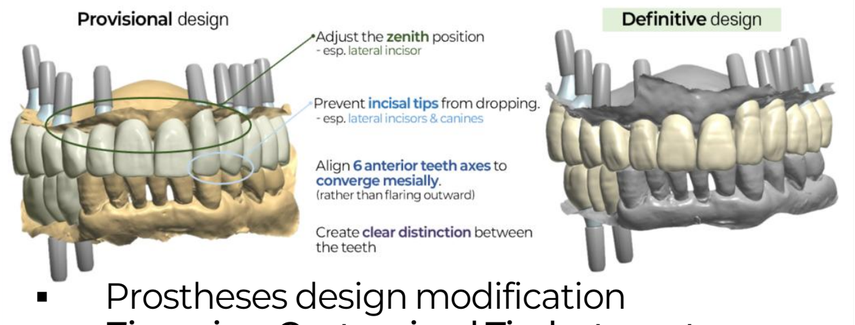
- Pontic base modification

Definitive Restoration



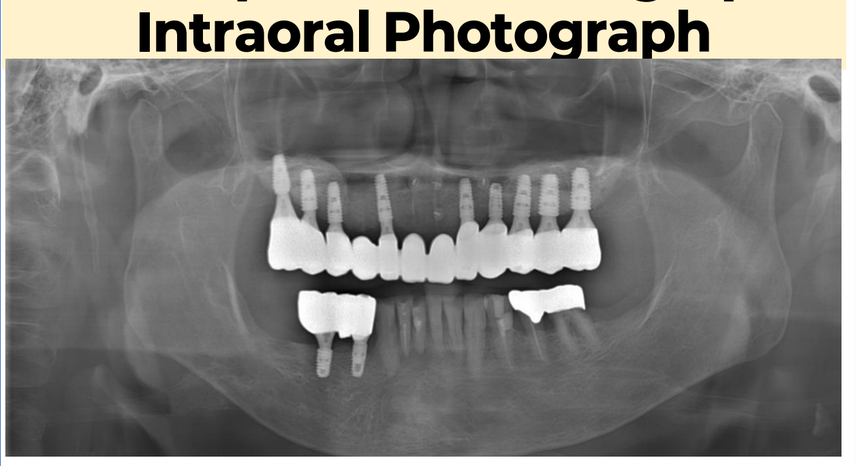


- Bite registration with provisional restoration
- Facial scanning (Bellus 3D) / Intraoral scanning (Medit i700)



- Prostheses design modification
- Zirconia + Customized Ti-abutment

Post-operative Radiograph Intraoral Photograph



Evaluation

Conclusion

Digital implant rehabilitation, combined with bone augmentation techniques, enhances treatment predictability, implant stability, and patient satisfaction through advanced workflows and collaborative decision-making.

Acknowledgement

We gratefully acknowledge Dr. Se-Hui Ahn, Dr. Hee-Won Yum, and Dr. Hyun Jae Kim for their clinical assistance, and Ok Sil Lee (CDT) and Moonkyung Choi (CDT) for their laboratory contributions.