Case Report :
Integrated Implant-Orthodontic Treatment for a Patient with Multiple Tooth Loss
- Early implant placement

Dr. Seung Chang Lee, DDS
Seoul top dental clinic

Patient Information

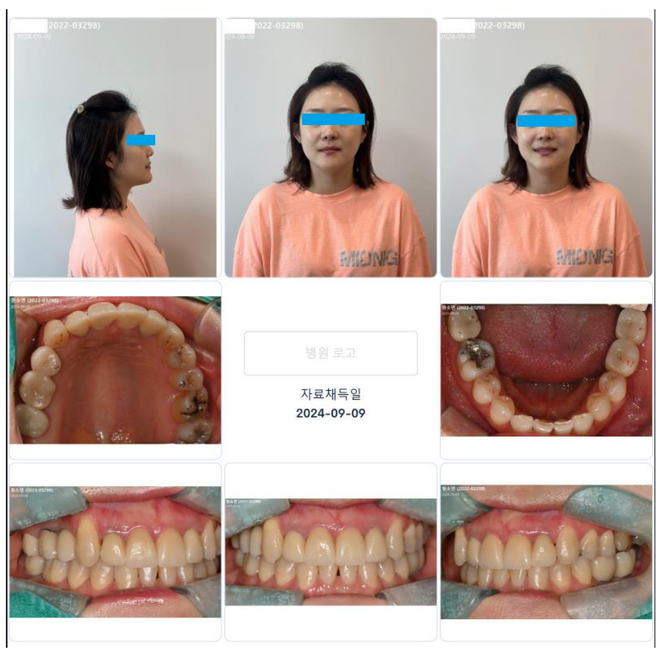
- **Age / Sex : 39/ female**
- **Tooth Number : all tooth**
- **CC : Comprehensive examination**
- **Problem list**
  - **Multiple caries**
  - **Collapsed occlusal plane**
  - **Unaesthetic anterior prosthesis**
  - **Mx midline 3mm shift to the right**

Treatment Plan

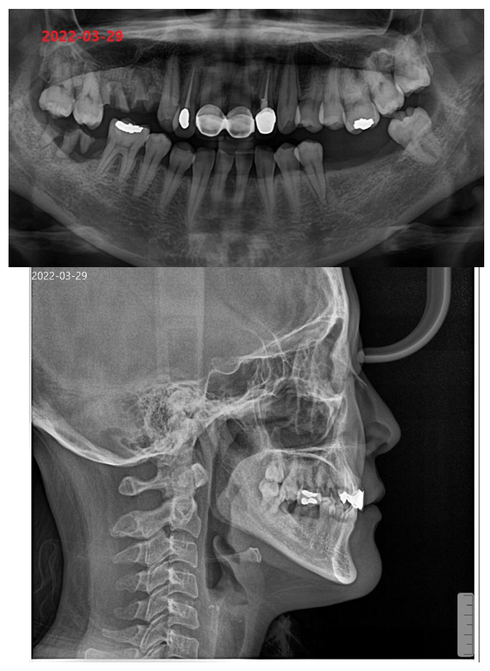
1. Early implant placement at #36, 37, and 47 to stabilize bite
2. Orthodontic treatment
3. Conservertive treatment
4. Prosthetic Treatment

Before

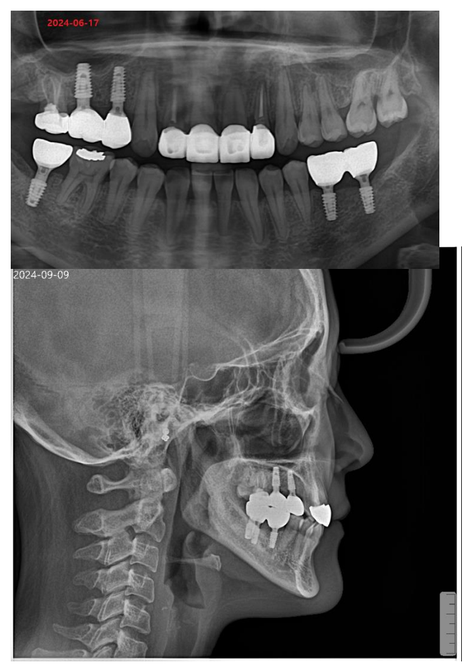
After



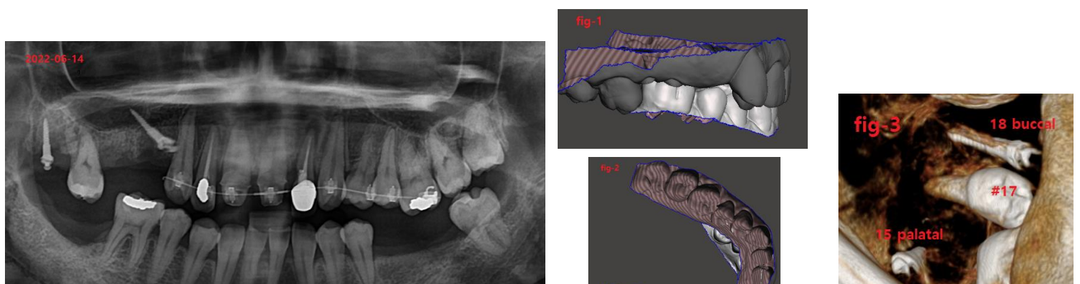
Before



After

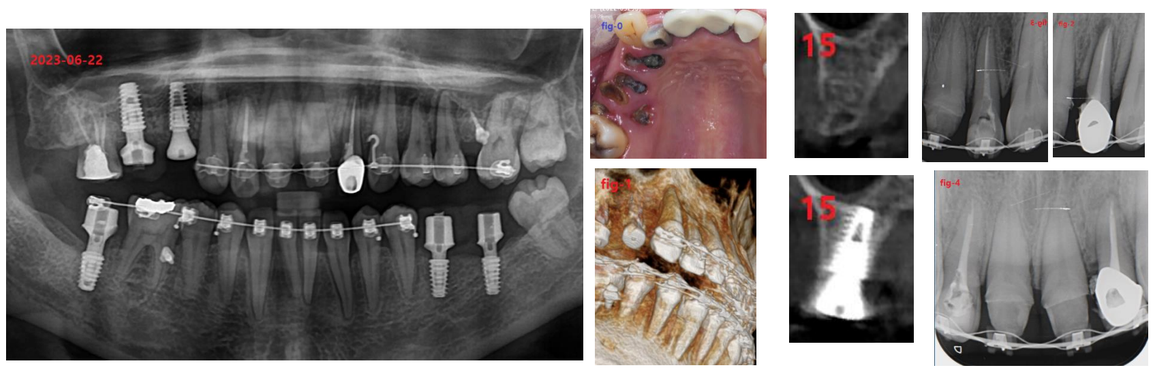


Clinical Procedures



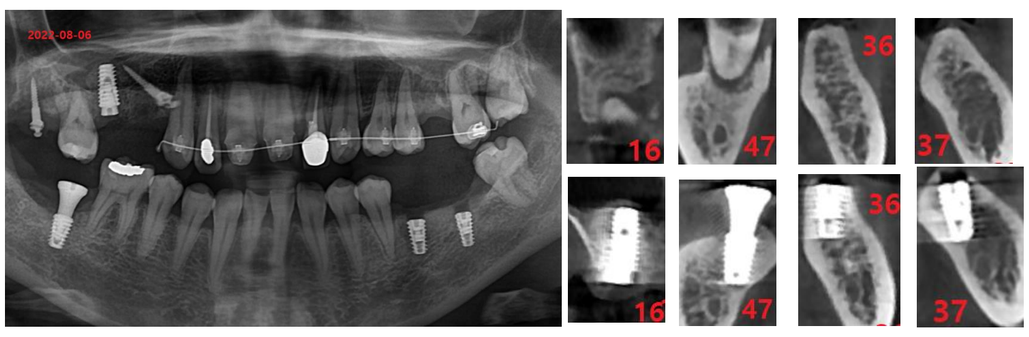
2022-06-14

- **11-22 Bridge Removal and Provisional Crown RMGI Bonding**
- **Maxillary 13-26 DBS**
- **Mini screw on #18 buccal & #15 palatal for #17 intrusion [fig-3]**
- **Frequent dislodgement of temporary teeth 11, 21 because of masticating with the roots of #16 and 46 before. [fig1,2]**
- **Treatment plan changed to the Early implant placement at #36, 37, and 47 to stabilize bite**



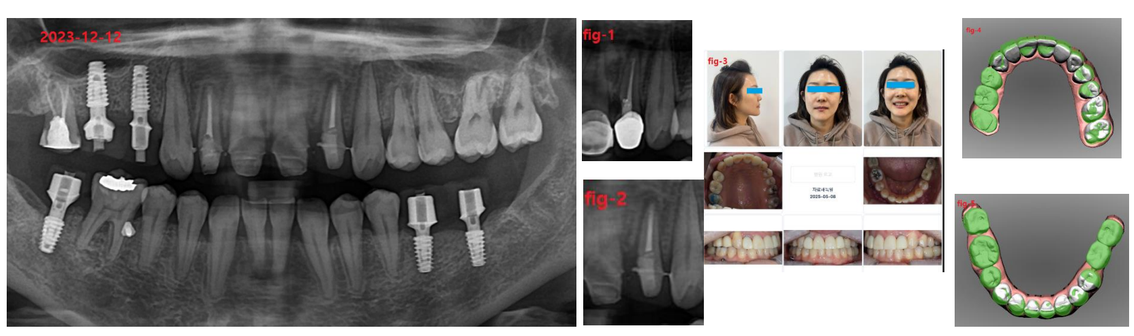
2023-06-22

- **Implant placement on # 14 following the alignment of #13 [fig-0, fig-1]**
- **Re-endodontic treatment on #12 and 22 [fig,2,3,4]**
- **Non-vital bleaching of #12**
- **Intrusion of #45 and 46 to restore occlusion plane**



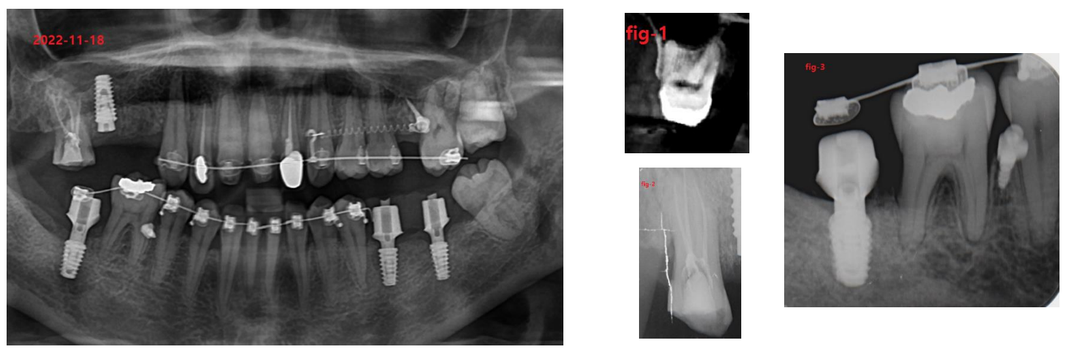
2022-08-16

- **Implant placement at the #16 36 37 and 47**
- **Still intrusion force on #17**
- **#26 extraction to align the midline**



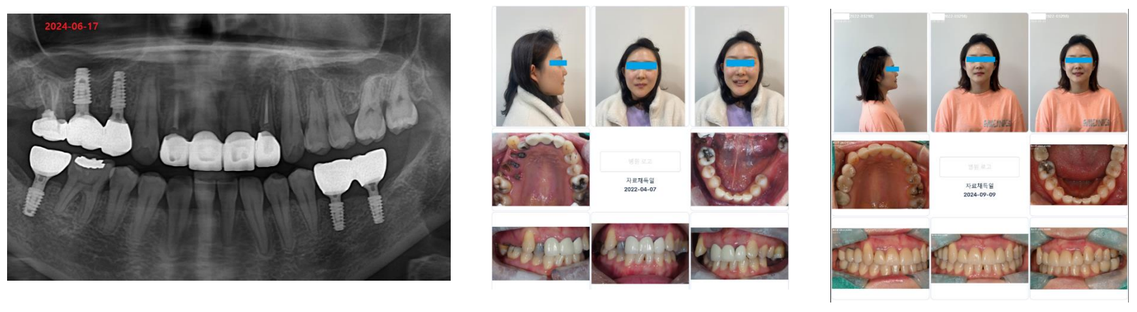
2023-12-12

- **Debonding**
- **Reduction of apical lesion & Resin filling of mesial root of #22 [fig-1,2]**
- **Provisional crown of #12 &22**
- **Clear aligner for finishing [fig-3,4,5]**



2022-11-18

- **NO movement of #17 for 5month because of sinus floor bone [fig-1]**
- **#17 intentional endodontic treatment [fig-2]**
- **# 36, 37 and 47 temporary crown loading to stabilize bite and facilitate early recovery of the CR**
- **Intrusion force on #46 and 45 with #47 and lower right miniscrew [fig-3]**
- **Using upper left miniscrew to align midline**



2024-06-17

- **Final prosthesis : Zirconia crowns of #17 16 15 36 37 and 47, Zirconia crown bridge for 12-22**
- **Improvement**
  : Recovery centric relation via posterior restoration
  : Improvement of the occlusal plane through intrusion of #45 and 46
  : Improvement of anterior esthetics through midline correction and alignment of tooth #13
  : Preservation of tooth #12 through intentional extrusion.

Conclusion

• Early implant placement served as an orthodontic anchorage, stabilizing orthodontic forces and facilitating early recovery of the centric relation (CR) of the temporomandibular joint, significantly reducing patient discomfort. Early implantation proved effective in securing orthodontic anchorage, restoring vertical dimension, and enhancing treatment efficiency. Furthermore, intentional extrusion of tooth #22 enabled its preservation without extraction, improving prognosis. A multidisciplinary approach integrating prosthodontics, orthodontics, and conservative dentistry offers an effective treatment strategy to enhance functional and aesthetic outcomes in patients with complex tooth loss.