

A Case Report:

Immediate Placement of Multiple Implants After Extraction Using Surgical Guides on a Patient with Missing and Fractured Teeth

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CASE DESCRIPTION

43Y Male
CC: I can't actually chew and eat food

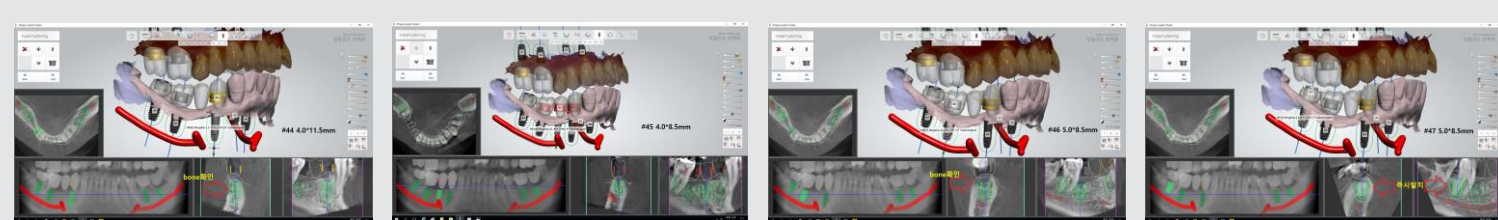


A 43-year-old male visited the clinic with a chief complaint of "I can't actually chew and eat food since I lost some teeth and had some fractured.". He said he had hesitated to have dental treatment due to his dental phobia and anxiety. A dental examination showed fractured teeth of #16, 26, 36, 44, missing teeth of #37, 45, 46, caries and pulpitis on #15, 17, 48 as well as overall chronic periodontitis.

The patient wanted to chew on the right side first. To reduce his fear against needles and pain, immediate implantation after extraction was planned. Ridges were narrow in the mandible and fixtures might be located near the inferior alveolar nerve. Sinus lift would delay the loading time since the remaining bone in the maxilla seemed quite thin.

Surgical guides were used that had been fabricated before the extraction. Extracted teeth of #47 and 48 were sent to be made into auto-tooth graft. On a different day, implants were placed on #15, 17 right after the extraction and auto-tooth graft was used on the site. Sinus lift was not performed on the site of missing #16 to reduce the loading time.

CLINICAL PROCEDURES 1



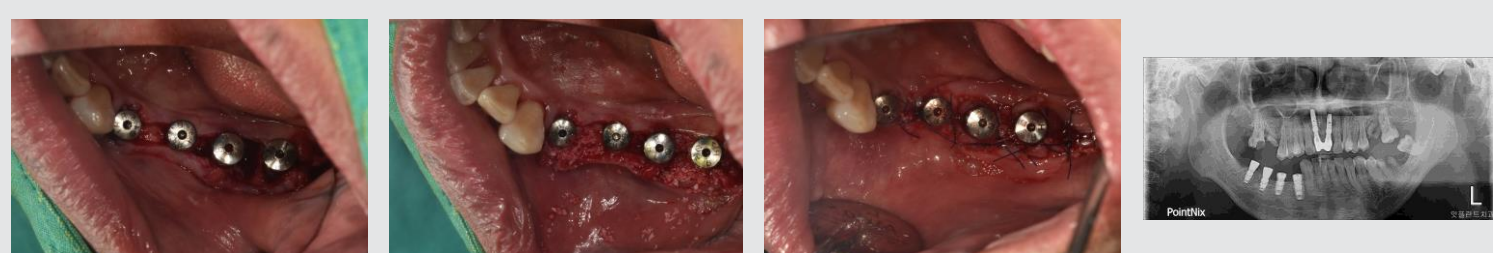
2017. 9. 11. Surgical guide design for the 1st surgery on the right mandible (#44, 45, 46, 47)



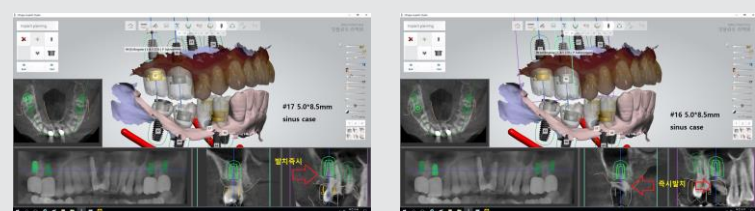
2017. 9. 19. 1st surgery on the right mandible (#44, 45, 46, 47)



2017. 9. 19. 1st surgery on the right mandible (#44, 45, 46, 47)
Surgical guide used



2017. 9. 19. 1st surgery on the right mandible (#44, 45, 46, 47)
Healing abutments connected
Bone graft



2017. 9. 11. Surgical guide design for the 1st surgery on the right maxilla (#17, 16)

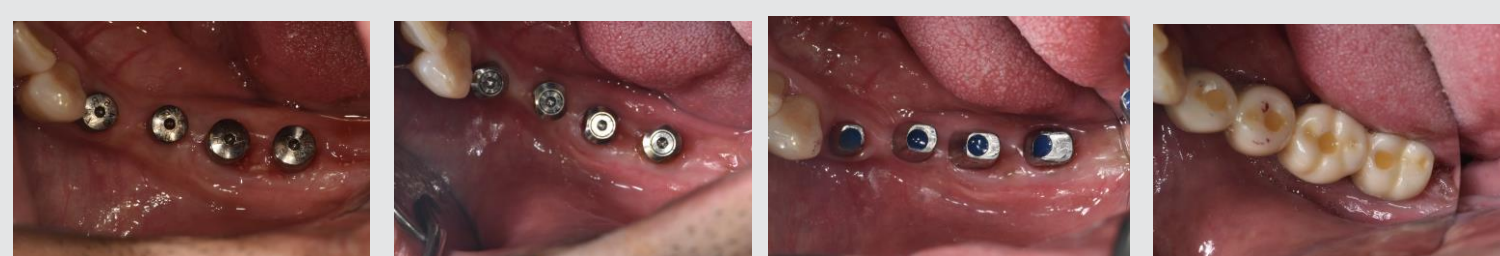


2017. 10. 16. #17, 16, 15 extracted
Plan changed according to the patient's request of giving up #15
1st surgery on the right maxilla (#17, 16)



2017. 10. 16. 1st surgery on the right maxilla (#17, 15)

CLINICAL PROCEDURES 2



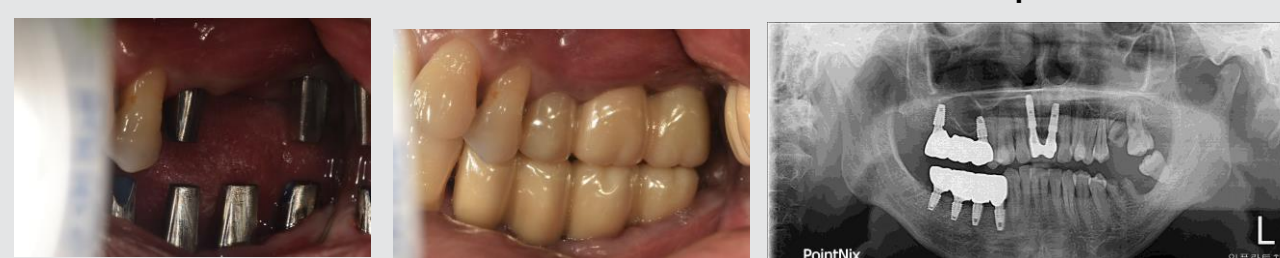
2017. 12. 18. Impressions taken

2017. 12. 28. Custom abutments and zirconia prostheses delivered



2017. 12. 18. Impressions taken

2017. 12. 28. Custom abutments and zirconia prostheses delivered

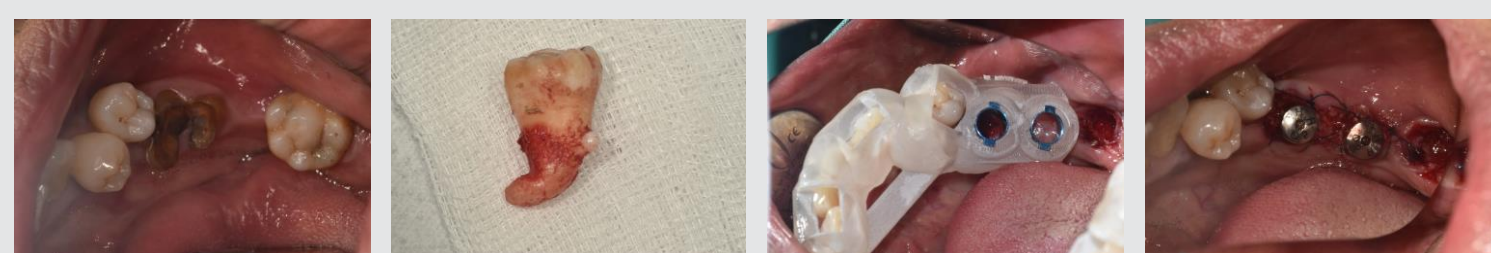


2017. 12. 18. Impressions taken

2017. 12. 28. Custom abutments and zirconia prostheses delivered

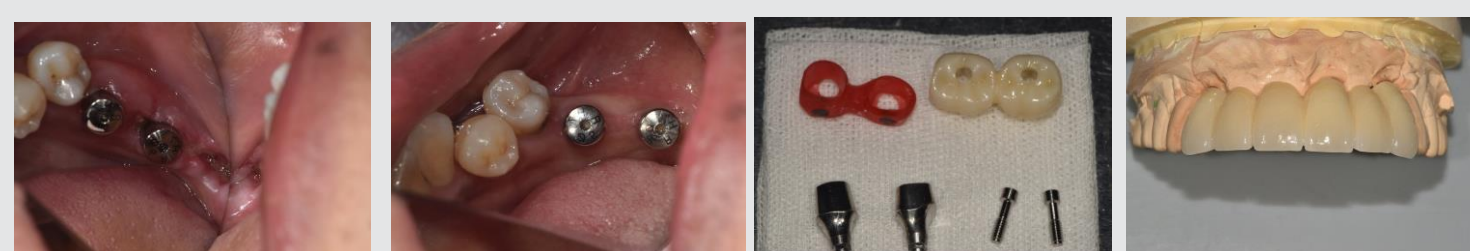


2017. 9. 11. Surgical guide design for the 1st surgery on the left mandible (#36, 37)



2018. 1. 18. #38, 36 extracted

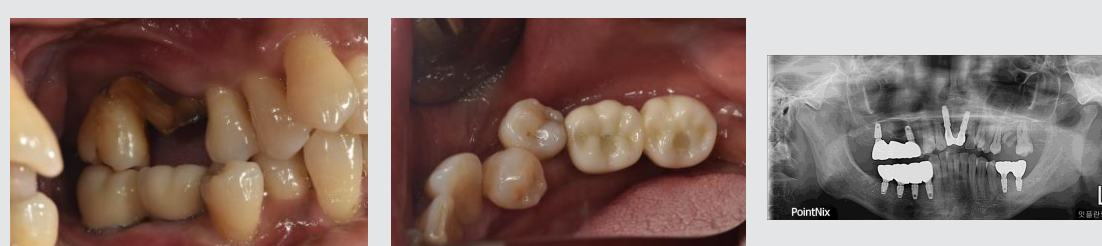
1st surgery on the left mandible (#36, 37)



2018. 1. 25. Stitched out

2018. 4. 16. Impressions taken

2018. 4. 23. Prostheses delivered on #36, 37

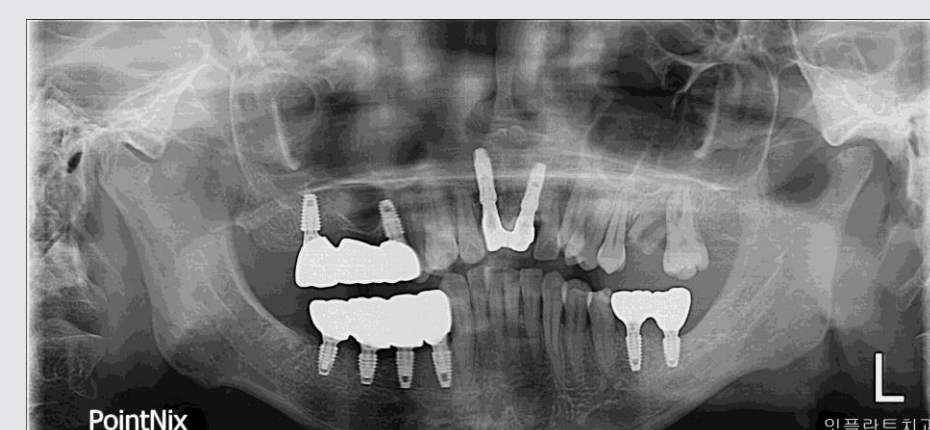


2018. 4. 23. Prostheses delivered on #36, 37

CONCLUSIONS

Surgical guides can be used to increase precision of implantation, to prevent possible nerve injuries or to achieve minimally invasive flap operation. In this case, surgical guides had been fabricated before the extraction of hopeless teeth and were used for the immediate placement of implants to shorten the loading time. Extracted teeth had been made into auto-tooth graft materials, which were planned to be used for bone graft in other surgical sites later.

Impressions were taken 3 months after the surgery. Zirconia prostheses and custom abutments were made and used for the final restoration. Surgical guides were used for the implantation in the extraction sockets to reduce surgery time and discomfort of the patient, which can be considered a feasible option to shorten the total treatment time.



2018. 4. 23. Panorama taken