

# The 1<sup>st</sup> Clinical Case Report of "THE Graft"

## Cell Biocompatibility

- Cell adhesion
- MTT viability
- Apatite deposition

## Biochemical Features

- Wettability
- Permeability

## Uncompromising Safety

- Controlled & Certified Raw Material
- Proprietary virus inactivation process

## Physical Features

- Volume Fill Capacity

## Biostructure Features

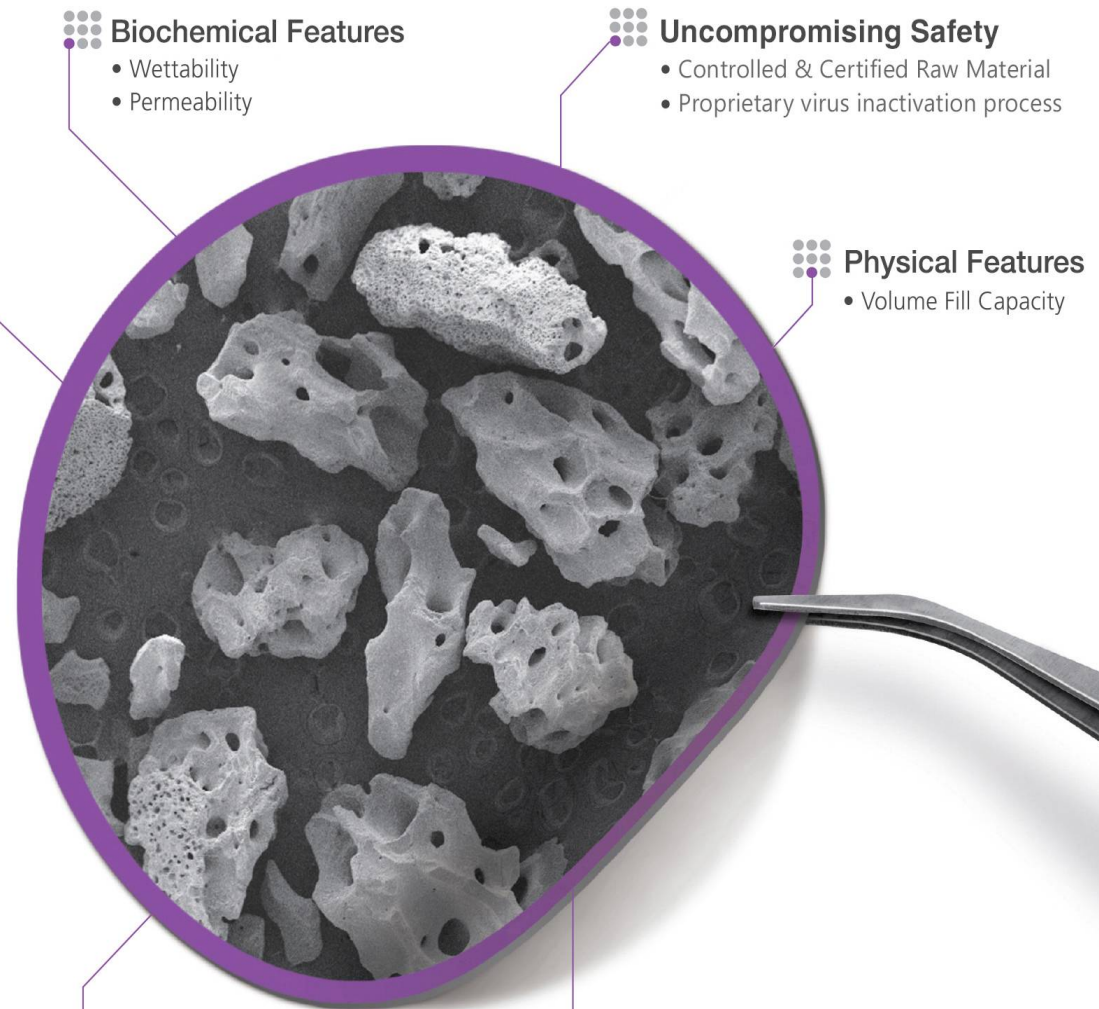
- SEM
- X-Ray Diffraction(XRD)

## Biomechanical Features

- Pore structure of the particle
- Particle Size Distribution
- Total Porosity
- Specific Surface Area Measurement

Feel the *clinical freedom*  
on the *science & safety*

**THE Graft**  
Natural Bone Substitute  
Cancellous Granules



# A technology that gives a predictable clinical result to every surgeon



Kim Tae Gyun,  
Gounmiso dental clinic

01



2014.6.23



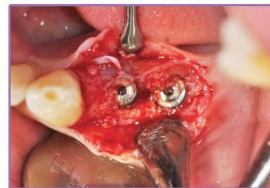
2014.9.30

GBR with "THE Graft" on 3mm gap defect could prevent the buccal bone absorption.

02



2014.10.17



2014.12.2

Drilling resistance at newly formed grafted site is strong like almost original bone. Newly established volume is well maintained after GBR surgery over on a relatively large bone defect. THE Graft has excellent cohesive, hydrophilic properties and BioCover has excellent handling property than other collagen membranes.



Kim Myung Jin,  
Crystal dental clinic

03



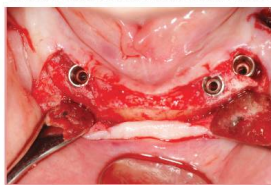
2014.6.25



2014.11.18

Despite a large and extensive bone grafting to the vertical & horizontal bony defects with sinus atrophies, the drilling resistance after 5 months later was quite hard enough to obtain initial stability with an ease

04

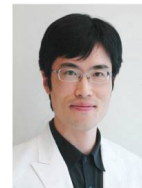


2014.8.11



2014.12.6

THE Graft and BioTex are remarkably easy to handle to overcome the difficulties of surgery. BioTex, PTFE suture which minimizes patient's discomfort is the best for the wound healing.



Kim Hyo Seob,  
Grutugi dental clinic

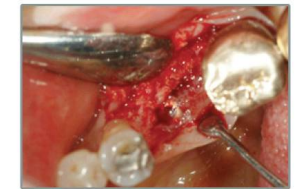


Park Jeong Cheol,  
Hyo dental clinic

05



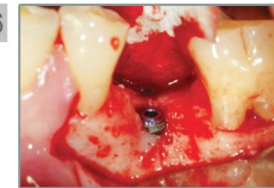
2014.2.17



2014.5.27

THE Graft brings a satisfactory new bone regeneration in spite of a large buccal bone defects.

06



2014.6.9



2014.10.10

By applying resorbable barrier membrane with THE Graft on buccal bone defects, a newly formed bone tissue had a pretty favorable look at the 2<sup>nd</sup> surgery.



Park Jun Seok,  
S-PLANT dental hospital

07



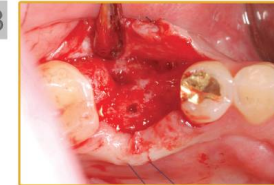
2014.9.6



2014.12.13

By applying THE Graft and BioCover on an extraction socket from periodontal abscess, the wound healed quite well and favorable newly formed bone tissue has been obtained and adequate bone volume was gained.

08



2014.6.28



2014.11.15

In the case of using THE Graft and BioCover on GBR, BioCover was easy to apply. At the 2<sup>nd</sup> surgery, there was a solid regenerated hard tissue with a sufficient bone volume.





Lee Ki,  
Dr. Yoon's dental clinic

09



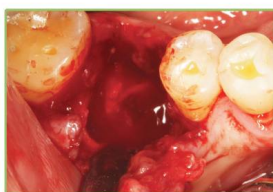
2014.7.21



2014.11.26

With the severe inflammatory conditions prior to extraction, gingiva was covered by Biocover and the defect was augmented by "The Graft". After 4 months later, implant placement and healing abutment were placed.

10



2014.6.23



2014.12.5

Due to odontoclasia, socket preservation after extraction was implemented. For the case of exposure, OpenTex membrane (PTFE) was selected and used. After 5 months later implant was placed with a stability.

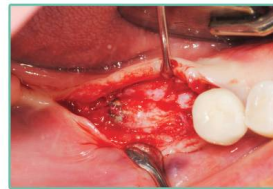


Lee Chang Kyun,  
Crystal dental clinic

11



2014.8.4



2014.11.4

After the bone defect caused by the failure of the implant and extraction, THE Graft was applied on thin alveolar ridge for bone augmentation. Sufficient stability was achieved at the implant placement.



Chung Chul Woo,  
Bundang NYU dental clinic

12



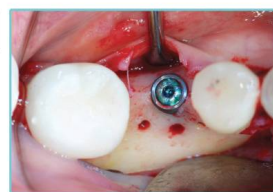
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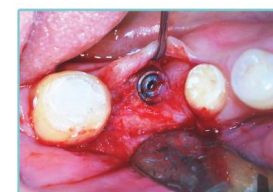
2014.12.3

After using of THE Graft on #14, #15 buccal bone defects, a satisfactory clinical result was obtained.

13



2014.7.18

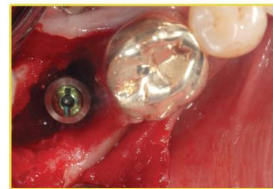


2014.10.14

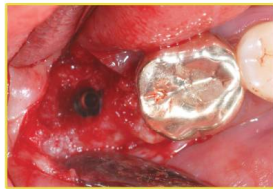


Jang Ji Woong,  
Dr. Jang dental clinic

14



2014.7.21



2014.12.6

By GBR with THE Graft and BioCover on circumferential bony defect for 2mm above gap, favorable newly formed hard bone tissue and the volume were observed.

# CASE1



Gounmiso dental clinic  
Dr. Kim Tae Gyun

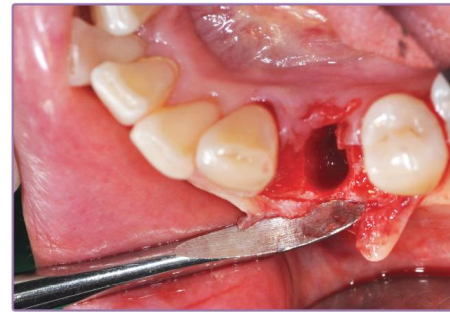
# 34 extraction, immediate implant placement



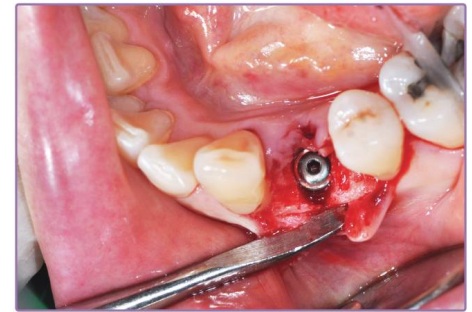
1 Pre-op buccal view



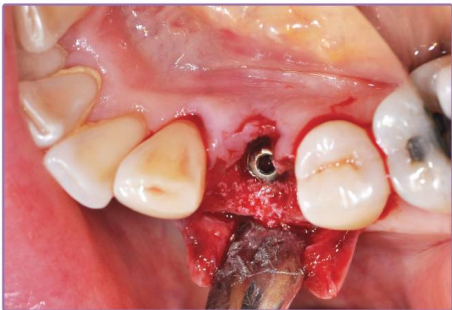
2 Pre-op occlusal view



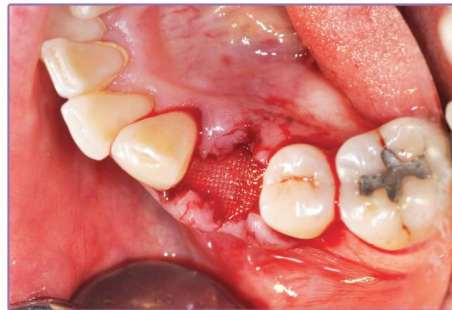
3 Flap opening (6.23.2014)



4 Implant placement



5 bone substitute, THE Graft



6 Resorbable membrane, BioCover



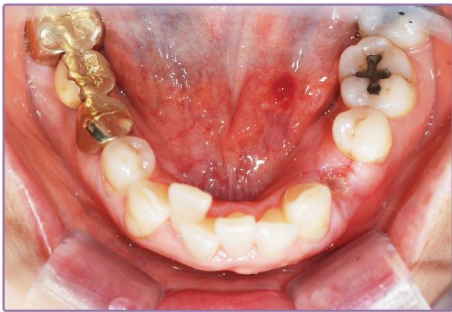
7 PTFE suture, BioTex



8 Before suture removed



“ GBR with “THE Graft” on 3mm gap defect could prevent the buccal bone absorption. ”



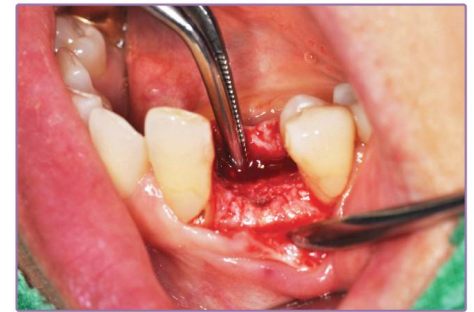
9 After suture removed (7.3.14)



10 Soft tissue, well cured



11 Re-entry for 2<sup>nd</sup> surgery (9.30.2014)



12 Post op-Buccal view



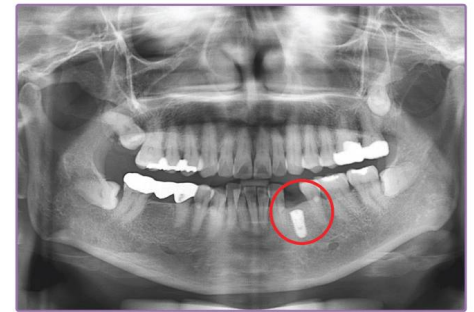
13 Healing abutment



14 After impression coping (12.2.14)



15 Pre-op panorama



16 Post-op panorama



# CASE2



Gounmiso dental clinic  
Dr. Kim Tae Gyun

#34, #35 Treatment of peri-implant bone defect



1 Pre-op buccal view



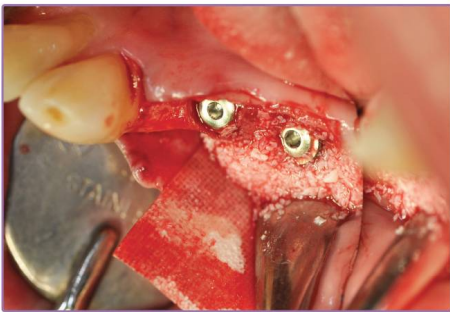
2 Pre-op occlusal view



3 Implant placement (10.17.2014)



4 Peri-implant bone defect



5 Bone substitute, THE Graft



6 Resorbable membrane, BioCover



7 PTFE suture, BioTex



8 Before suture removed



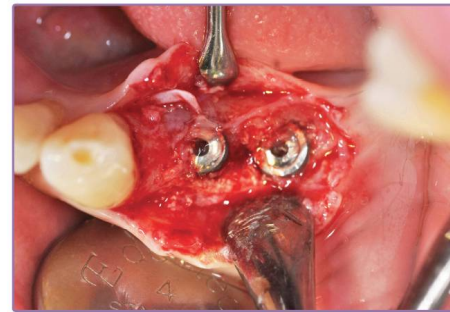
“ Drilling resistance at newly formed grafted site is strong like almost original bone. Newly established volume is well maintained after GBR surgery over on a relatively large bone defect. THE Graft has excellent cohesive, hydrophilic properties and BioCover has excellent handling property than other collagen membranes. ”



9 After suture removed (10.24.14)



10 Soft tissue, well cured



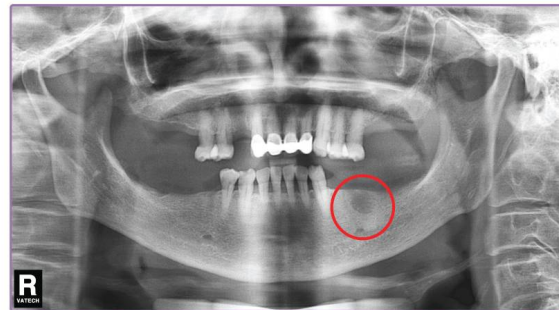
11 Re-entry for 2<sup>nd</sup> surgery (12.2.2014)



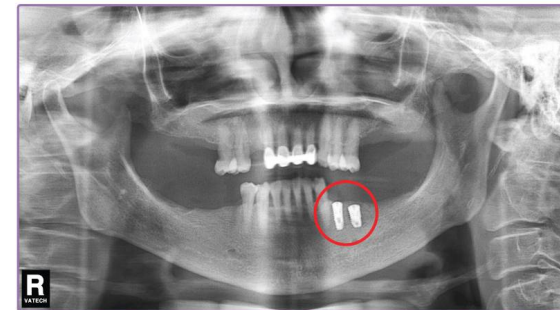
12 Healing Abutment



13 Post-op buccal view



14 Pre-op panorama



15 Post-op panorama



# CASE3

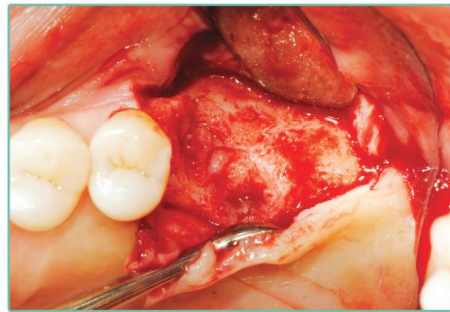


Crystal dental clinic  
Dr. Kim Myung Jin

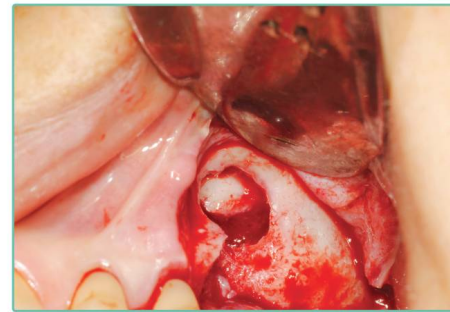
#26, #27 maxillary sinus augmentation & GBR



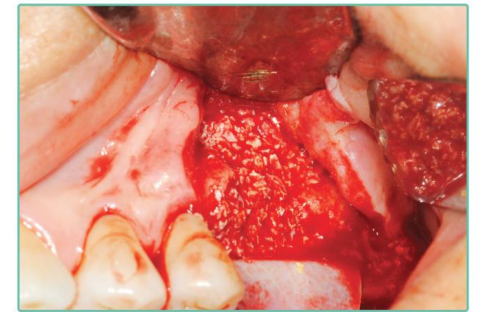
1 Pre-op occlusal view



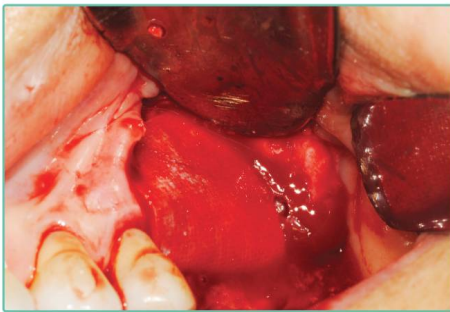
2 Flap opening (6.25.2014)



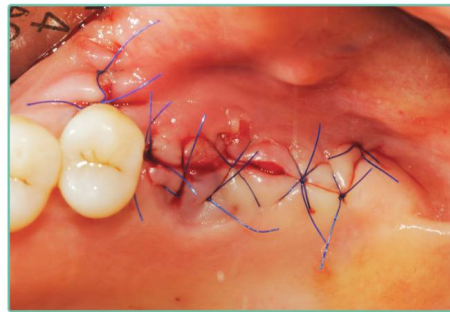
3 Lateral window approach



4 Bone substitute, THE Graft



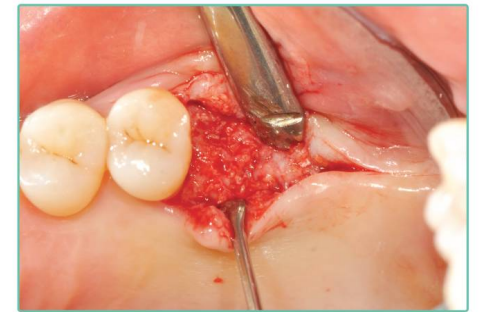
5 Resorbable membrane, BioCover



6 Suture



7 Soft tissue, well cured



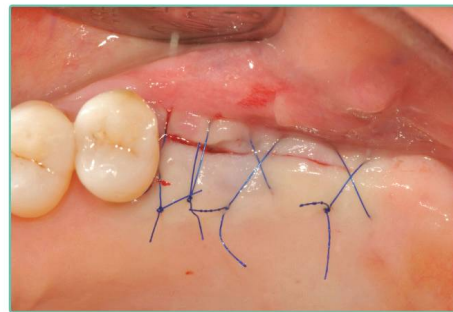
8 Re-entry for 2<sup>nd</sup> surgery  
(11.18.2014)



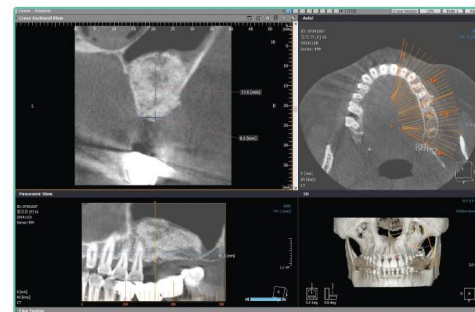
“ Despite a large and extensive bone grafting to the vertical & horizontal bony defects with sinus atrophies, the drilling resistance after 5 months later was quite hard enough to obtain initial stability with an ease. ”



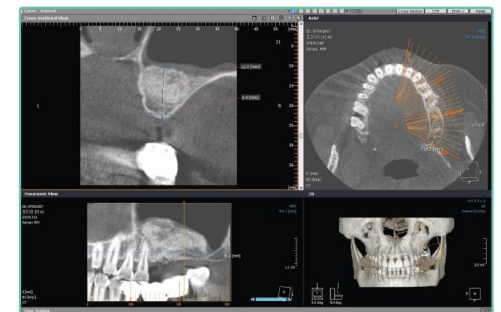
9 Implant placement



10 Suture



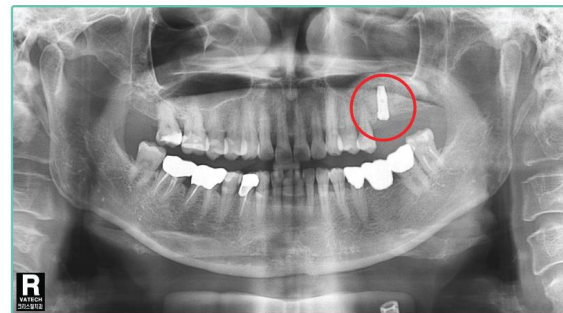
11 Post-op CT1



12 post-op CT2



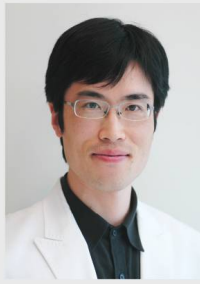
13 Pre-op panorama



14 Post-op panorama

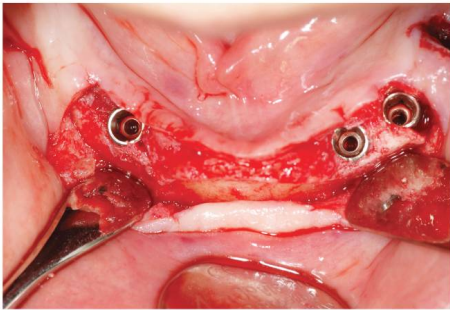


# CASE4

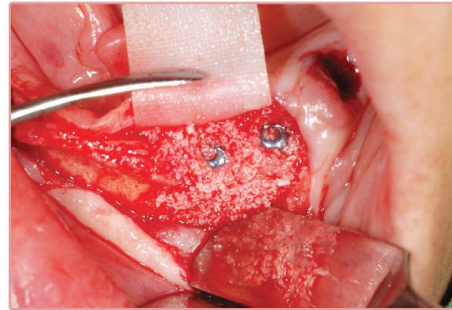


Grutugi dental clinic  
Dr. Kim Hyo Seob

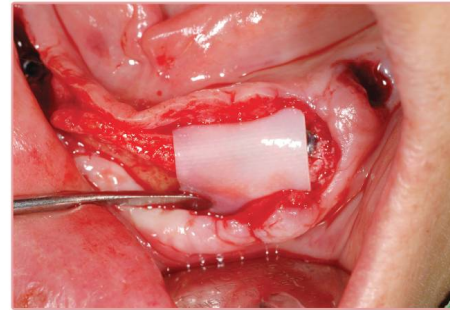
#33, #34, #44 implant placement & GBR



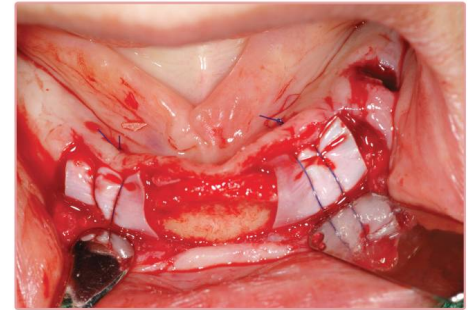
1 Implant placement (8.11.2014)



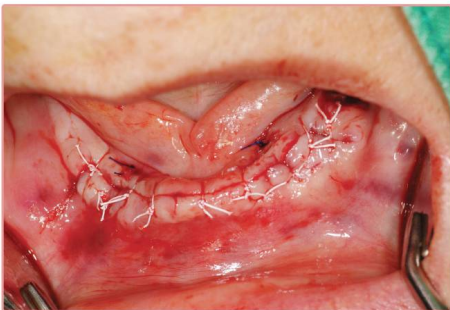
2 Bone substitute, THE Graft



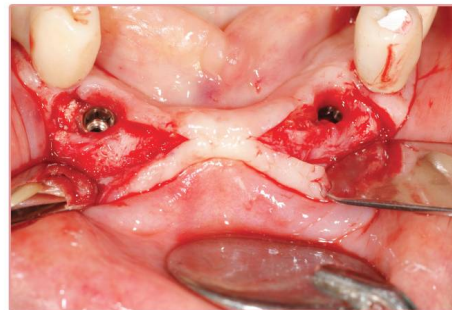
3 Resorbable membrane, BioCover



4



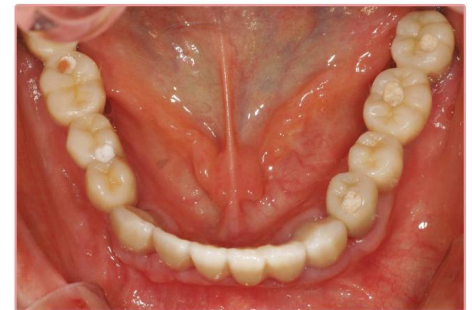
5 PTFE suture, BioTex



6 Re-entry for 2<sup>nd</sup> surgery  
(12.6.2014)



7 Healing abutment



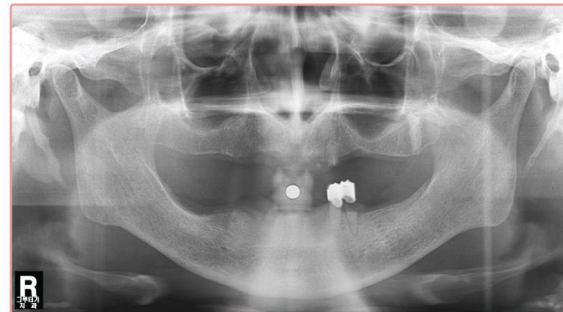
8 Occlusal view



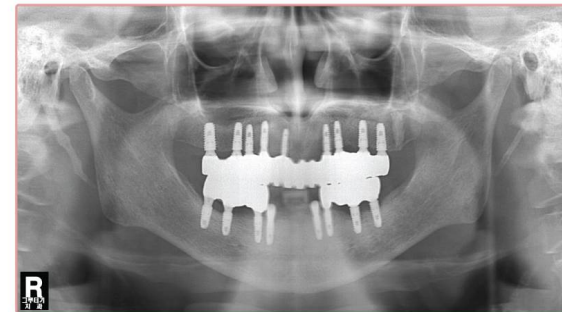
“ THE Graft and BioTex are remarkably easy to handle to overcome the difficulties of surgery. BioTex, PTFE suture which minimizes patient's discomfort is the best for the wound healing. ”



9 Labial view



10 Pre-op Panorama



11 Post-op panorama



# CASE5

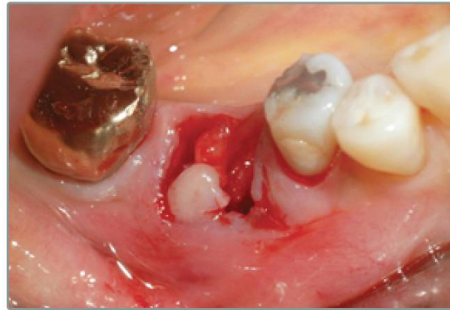


Hyo dental clinic  
Dr. Park Jeong Cheol

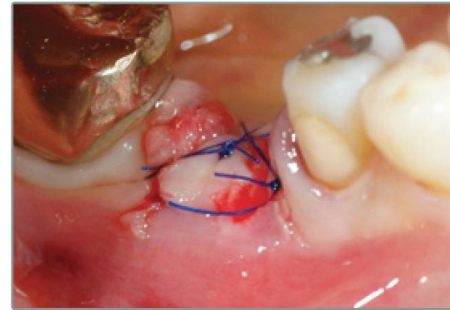
#46 Horizontal augmentation



1 Pre-op photo



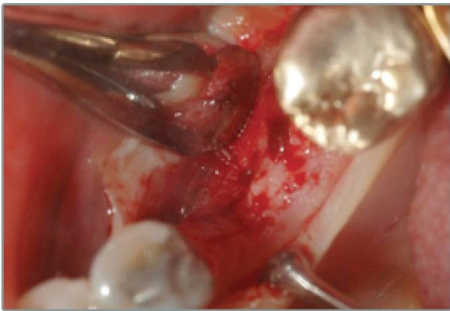
2 Extraction (11.27.2013)



3 After extraction,  
Applied GidePlug® and suture



4 Soft tissue, well cured



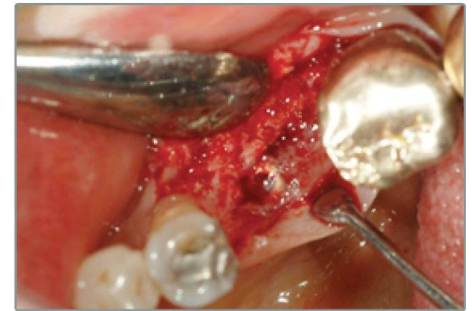
5 Flap opening (2.17.2014)



6 Implant placement



7 Bone substitute, THE Graft



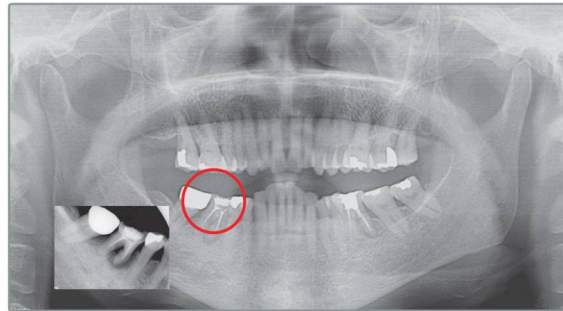
8 Re-entry for 2<sup>nd</sup> surgery  
(5.27.2014)



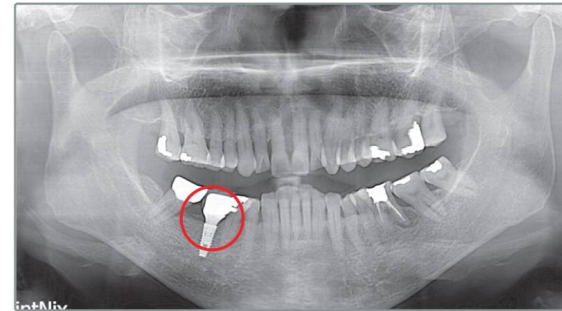
“ THE Graft brings a satisfactory new bone regeneration in spite of a large buccal bone defects.”



9 Final prosthesis (7.15.2014)



10 Pre-op panorama



11 Post-op panorama



# CASE6



Hyo dental clinic  
Dr. Park Jeong Cheol

#35 Horizontal bone defect treatment



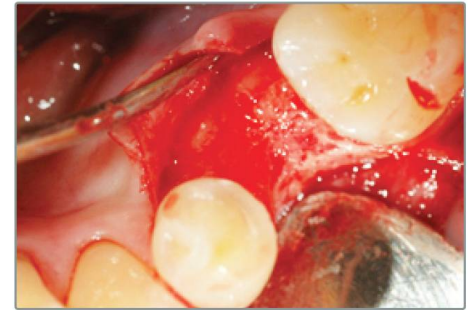
1 Pre-op buccal view



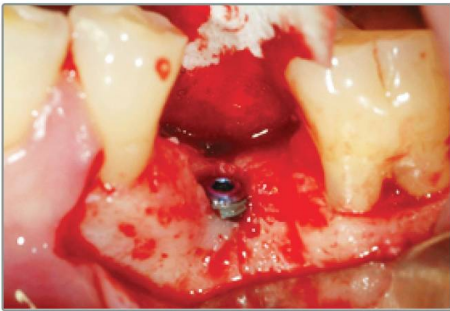
2 Pre-op occlusal view



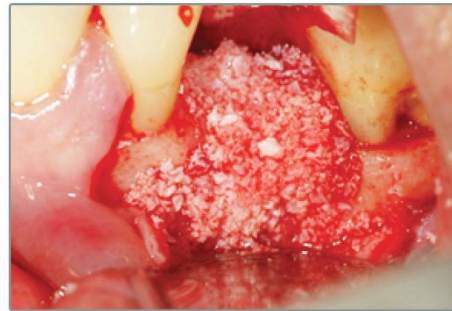
3 Flap opening (6.9.2014)



4 Occlusal view



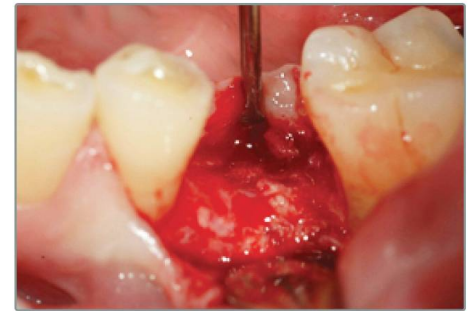
5 Implant placement



6 Bone substitute, THE Graft



7 Suture



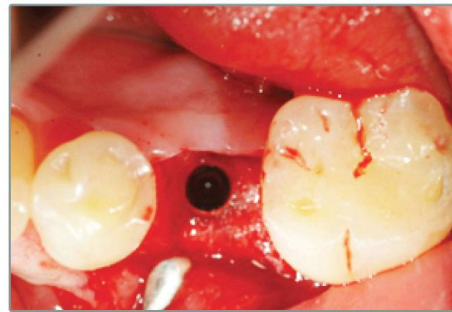
8 Re-entry for 2<sup>nd</sup> surgery  
(10.10.2014)



“ By applying resorbable barrier membrane with THE Graft on buccal bone defects, a newly formed bone tissue had a pretty favorable look at the 2<sup>nd</sup> surgery. ”



9 Cover screw check



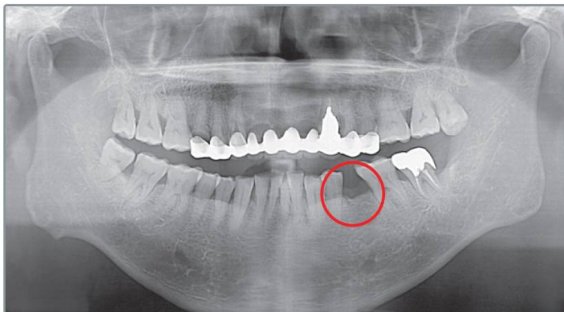
10 Occlusal view



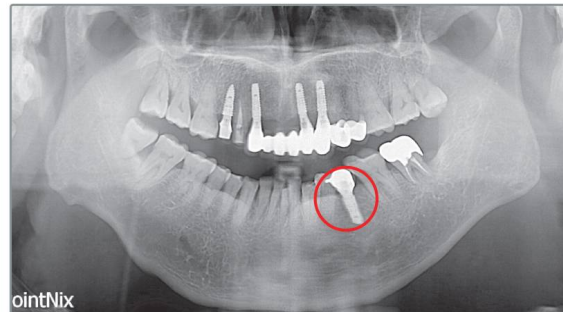
11 Healing Abutment



12 Final Prosthesis (12.20.2014)



13 Pre-op panorama



14 Post-op panorama



# CASE7



S-PLANT dental hospital  
Dr. Park Jun Seok

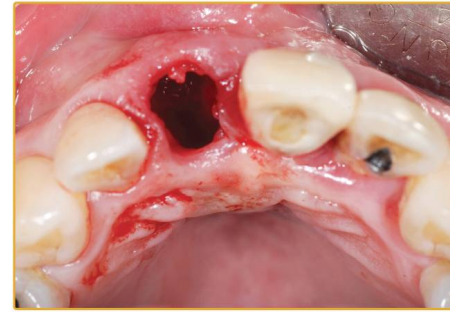
#11 extraction & preservation treatment due to periodontal abscess



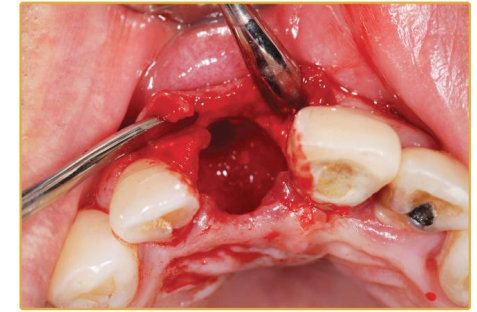
1 Pre-op labial view



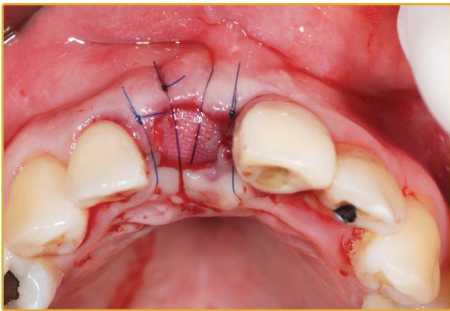
2 Pre-op occlusal view



3 Extraction (9.6.2014)



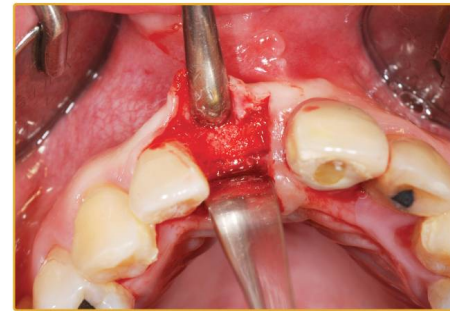
4 Bone substitute, THE Graft



5 Resorbable membrane, BioCover



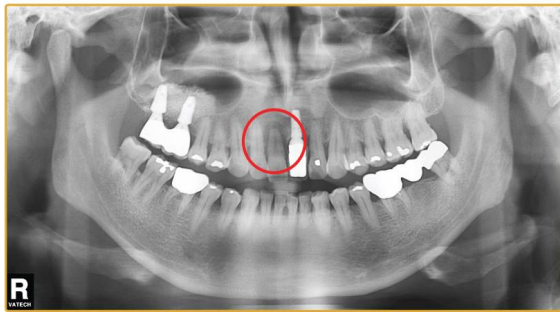
6 Soft tissue, well cured



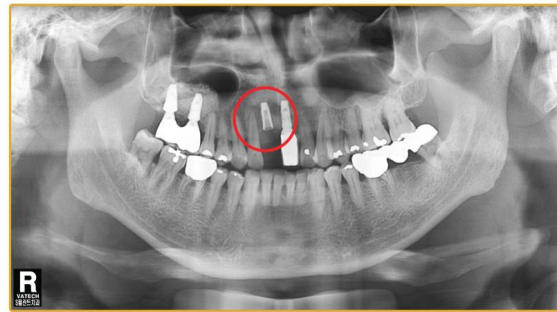
7 Re-entry for implant placement  
(12.13.2014)



“ By applying THE Graft and BioCover on an extraction socket from periodontal abscess, the wound healed quite well and favorable newly formed bone tissue has been obtained and adequate bone volume was gained. ”



8 Pre-op panorama



9 Post-op panorama



# CASE8



S-PLANT dental hospital  
Dr. Park Jun Seok

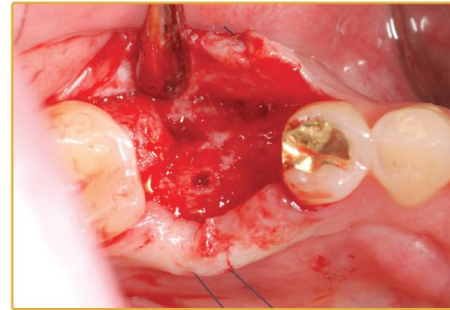
#36 Implant placement with GBR for buccal bone defect



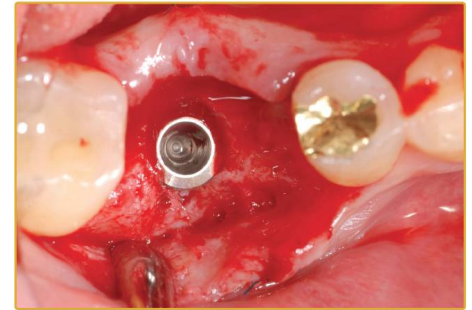
1 Pre-op buccal view



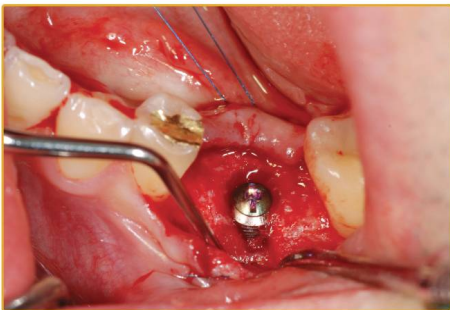
2 Pre-op occlusal view



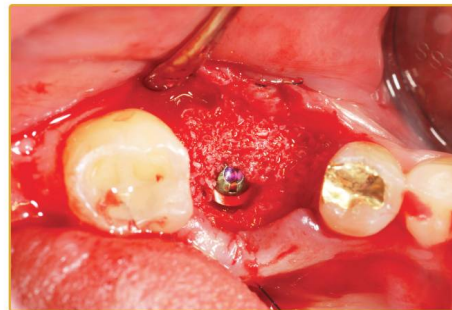
3 Flap opening (6.28.2014)



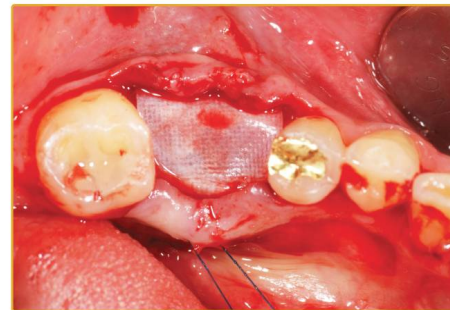
4 Implant placement



5 Peri-implant bone defect



6 Bone substitute, THE Graft



7 Resorbable membrane, BioCover



8 PTFE suture, BioTex



“ In the case of using THE Graft and BioCover on GBR, BioCover was easy to apply. At the 2<sup>nd</sup> surgery, there was a solid regenerated hard tissue with a sufficient bone volume. ”



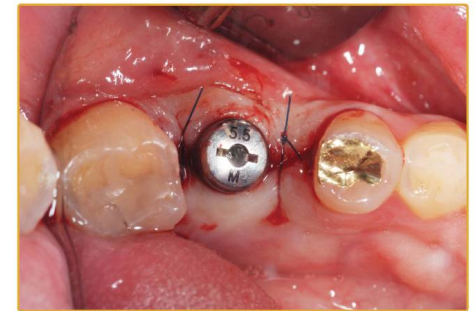
9 Before suture removed (7.10.2014)



10 Soft tissue, well cured



11 Re-entry for 2<sup>nd</sup> surgery (11/15/2014)



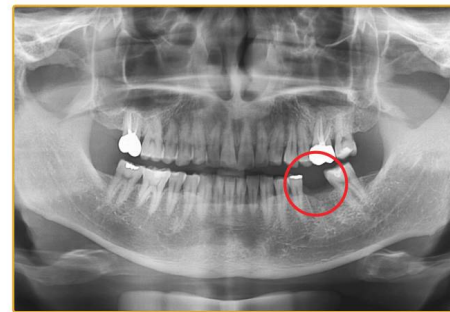
12 Healing abutment



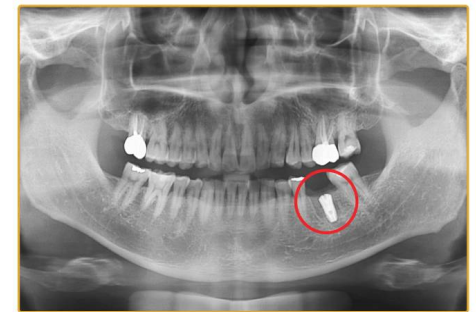
13 Final prosthesis (12.27.2014)



14 Final prosthesis buccal view



15 Pre-op panorama



16 Post-op panorama



# CASE9



Dr. Yoon's dental clinic  
Dr. Lee Ki

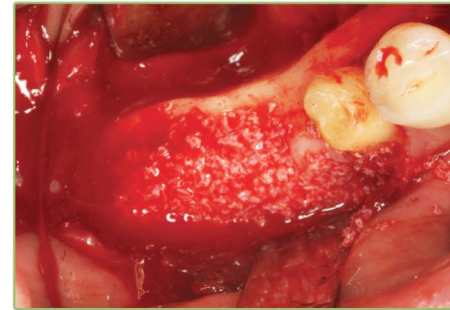
After ridge augmentation, #46, #47 implant treatment



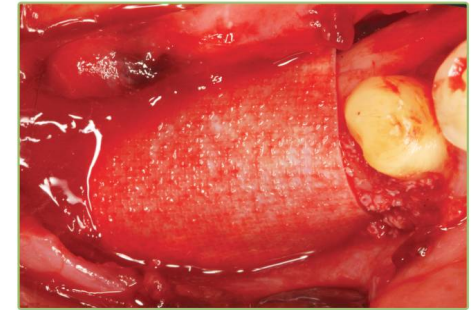
1 Pre-op photo



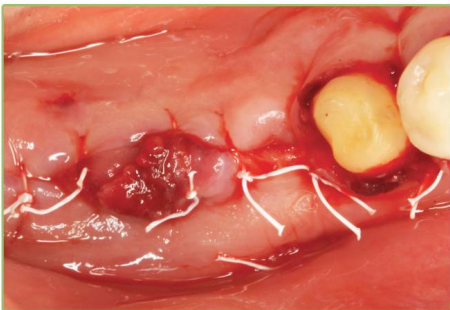
2 Flap opening after extraction  
(7.21.2014)



3 Bone substitute, THE Graft



4 Resorbable membrane, BioCover



5 PTFE suture, BioTex



6 Before suture removed



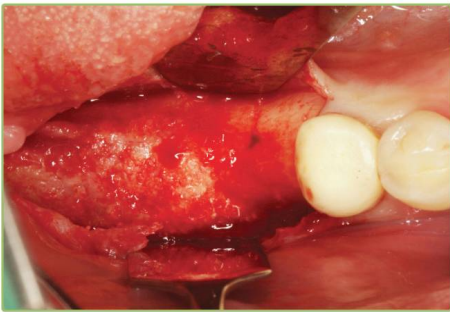
7 After suture removed



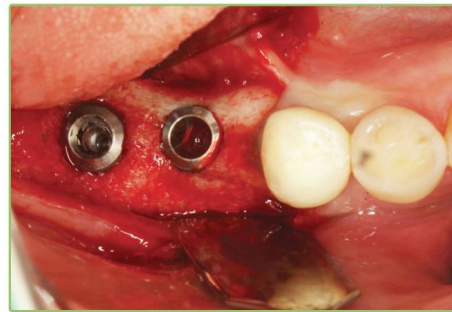
8 Soft tissue, well cured



“ With the severe inflammatory conditions prior to extraction, gingiva was covered by Biocover and the defect was augmented by “The Graft”. After 4 months later, implant placement and healing abutment were placed. ”



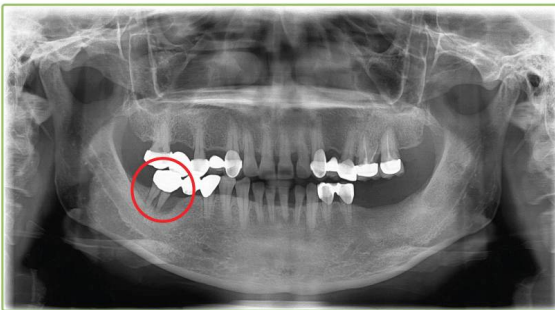
9 Re-entry for 2<sup>nd</sup> surgery  
(11.26.2014)



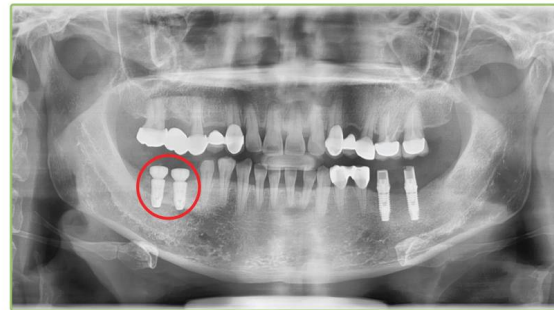
10 Implant placement



11 Healing abutment



12 Pre-op panorama



13 Post-op panorama



# CASE10



Dr. Yoon's dental clinic  
Dr. Lee Ki

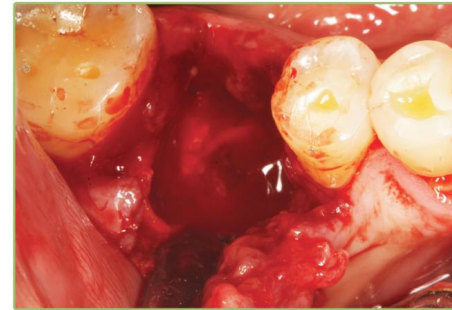
After #46 extraction, bone grafting with non-resorbable membrane



1 Pre-op occlusal view



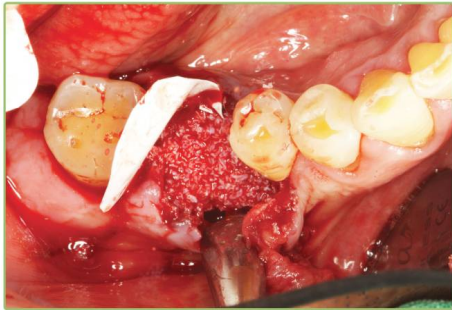
2 Pre-op buccal view



3 Flap opening after extraction  
(6/23/2014)



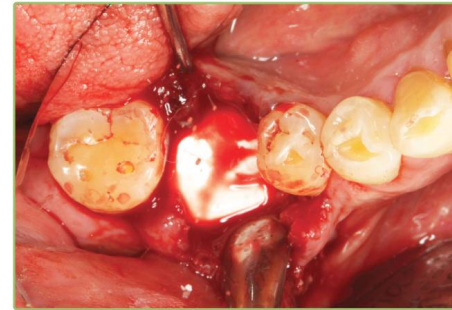
4



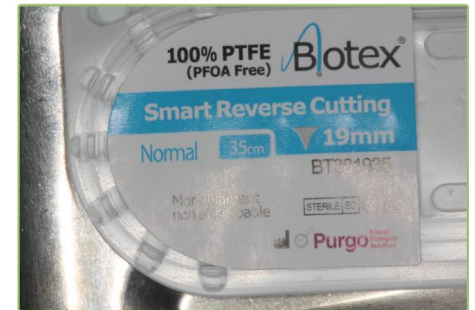
5 Bone substitute, THE Graft



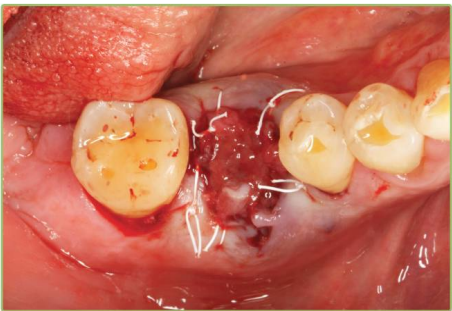
6



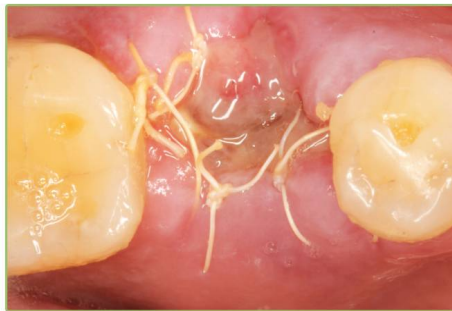
7 Non-resorbable membrane, OpenTex



8



9 PTFE suture, BioTex



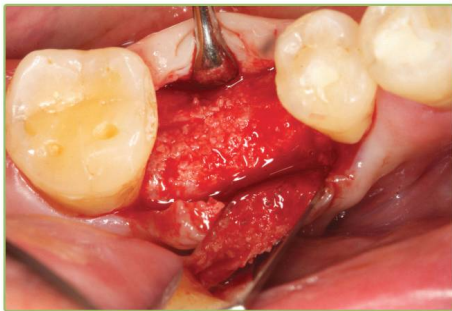
10 Before suture removed (6.30.2014)



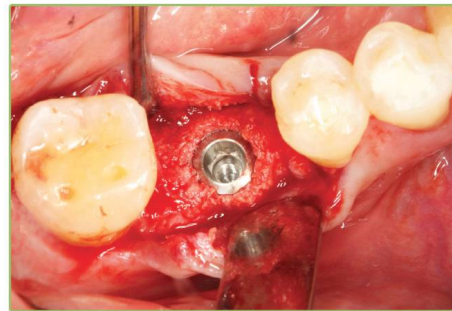
11 Soft tissue, well cured



“ Due to ondontoclasia, socket preservation after extraction was implemented. For the case of exposure, OpenTex membrane (PTFE) was selected and used. After 5 months later implant was placed with a stability. ”



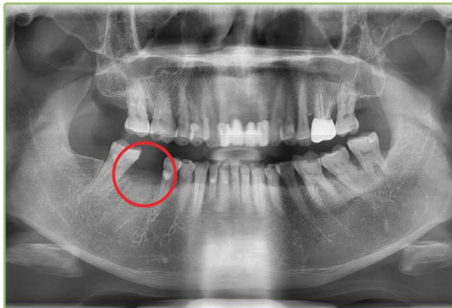
12 Re-entry for 2<sup>nd</sup> surgery (12/5/2014)



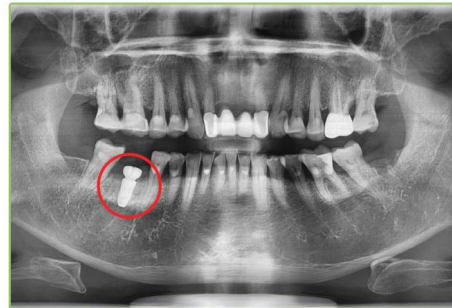
13 Implant placement



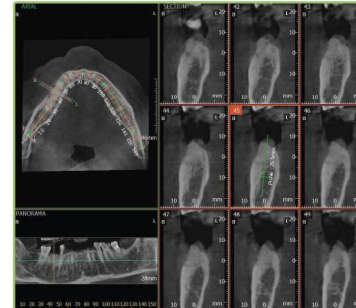
14 Healing abutment



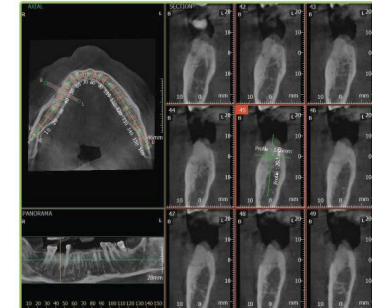
15 Pre-op panorama



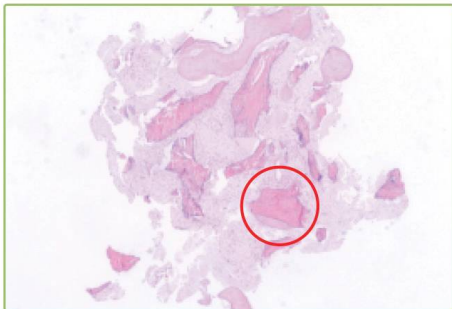
16 Post-op panorama



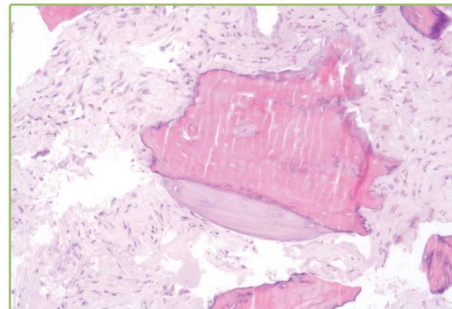
17 CT1



18 CT2



19 x40



20 x200, #46 alveolus biopsy: a new born formation around graft materials



# CASE11

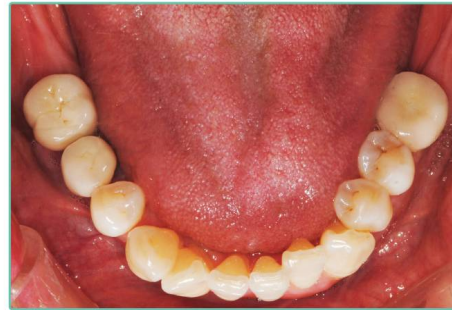


Crystal dental clinic  
Dr. Lee Chang Kyun

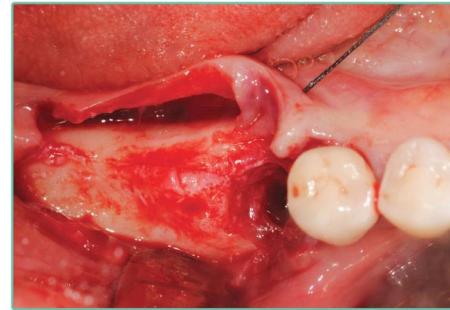
Ridge augmentation on #46, #47



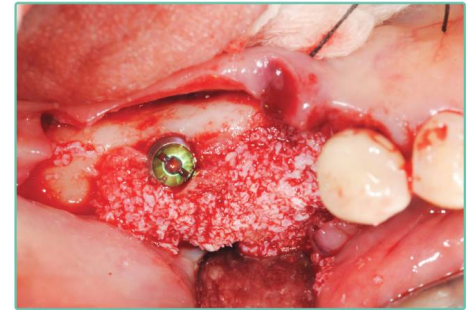
1 Pre-op buccal view, #46 failed implant



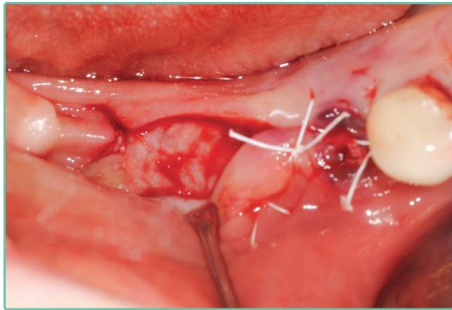
2 Pre-op occlusal view, #36, #46 failed implant



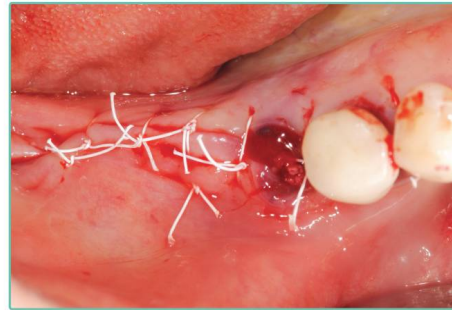
3 Implant extraction & flap opening  
(8/4/2014)



4 Implant placement (#47), bone substitute,  
THE Graft (#46, #47)



5 Resorbable membrane, BioCover



6 PTFE suture, BioTex



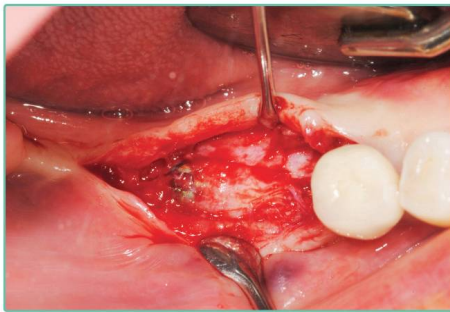
7 Occlusal view, well cured soft tissue



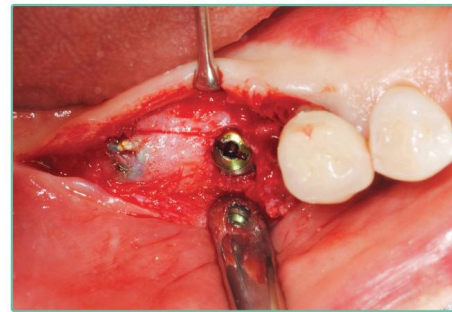
8 Buccal view



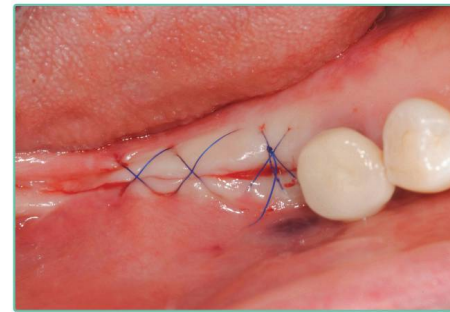
“ After the bone defect caused by the failure of the implant and extraction, THE Graft was applied on thin alveolar ridge for bone augmentation. Sufficient stability was achieved at the implant placement. ”



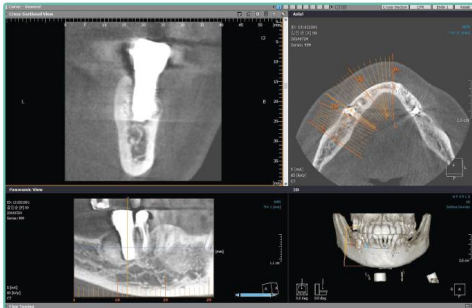
9 Re-entry for #46 implant placement (11.4.2014)



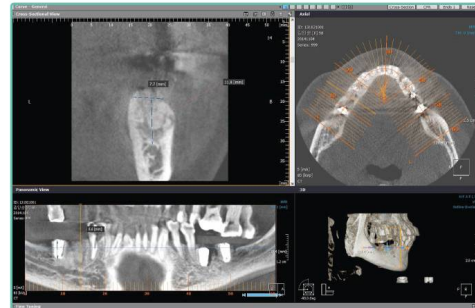
10 Implant placement



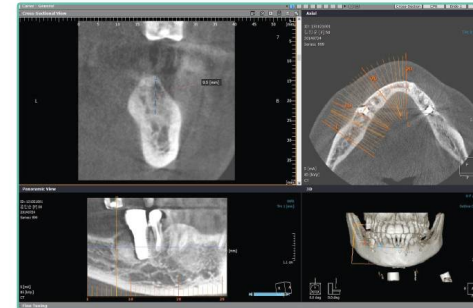
11 Suture



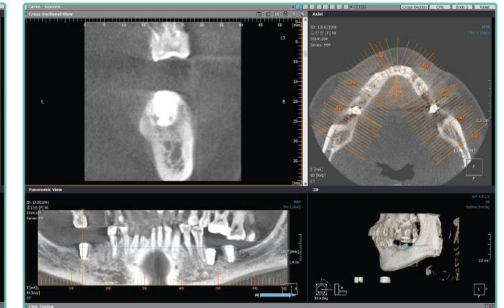
12 Pre-op CT, #46 failed implant



Post-op CT, implant extraction & bone graft



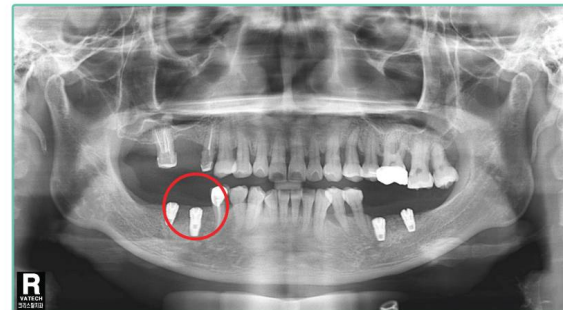
13 Pre-op CT, #47 buccal defect



Post-op CT, implant placement with GBR



14 Pre-op panorama



15 Post-op panorama



# CASE12

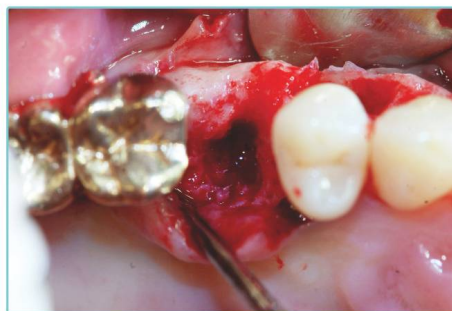


Bundang NYU dental clinic  
Dr. Chung Chul Woo

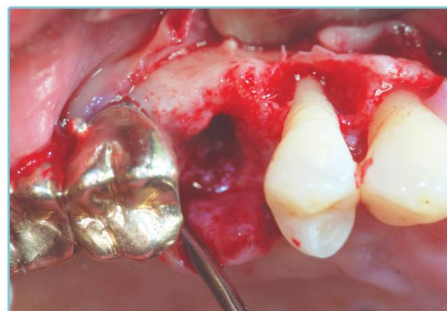
GBR on #14 buccal defect & #15 implant



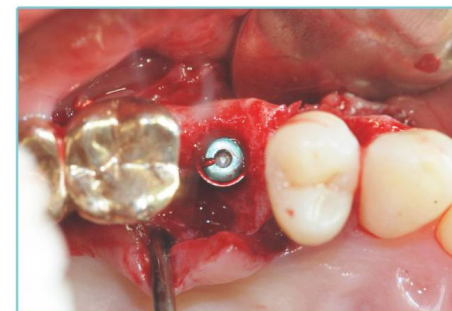
1 Incision (7.15.2014)



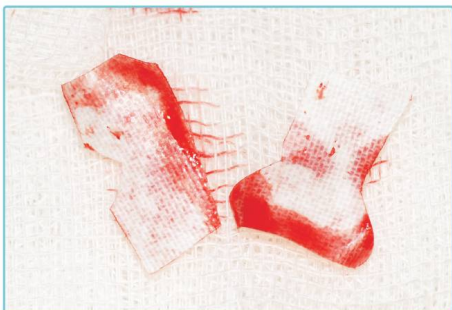
2 Flap opening



3 Buccal bone defect



4 Implant placement



5 Resorbable membrane trimming



6 Bone substitute, THE Graft &  
Resorbable membrane, BioCover



7



8 PTFE suture, BioTex



“ After using of THE Graft on #14, #15 buccal bone defects, a satisfactory clinical result was obtained. ”



9



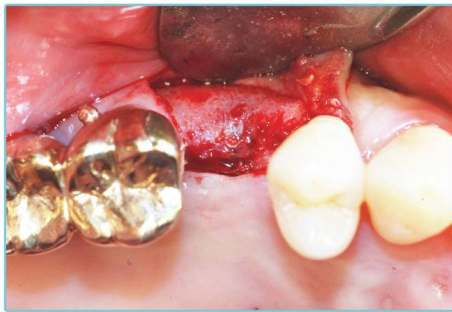
10 Before suture removed(7.22.2014)



11 After suture removed



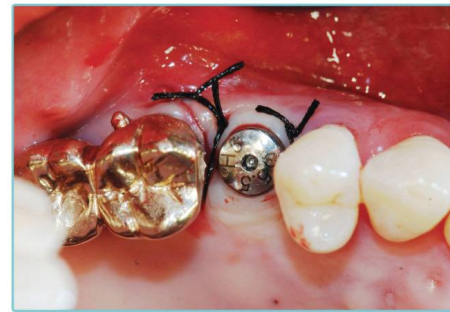
12 Soft tissue, well cured



13 Re-entry for 2<sup>nd</sup> surgery (12.3.2014)



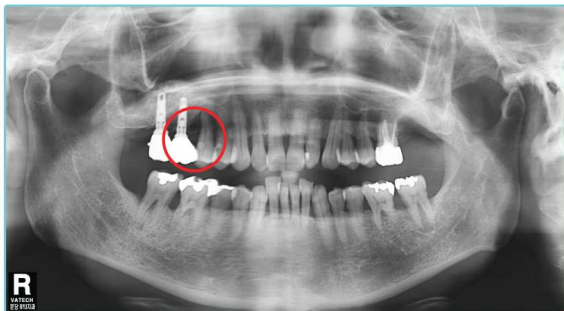
14



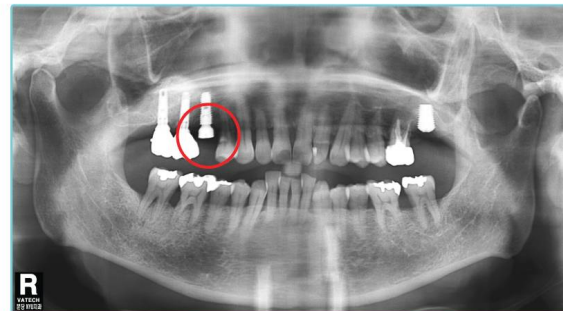
15 Healing abutment



16 Soft tissue, well cured



17 Pre-op panorama



18 Post-op panorama



# CASE13



Bundang NYU dental clinic  
Dr. Chung Chul Woo

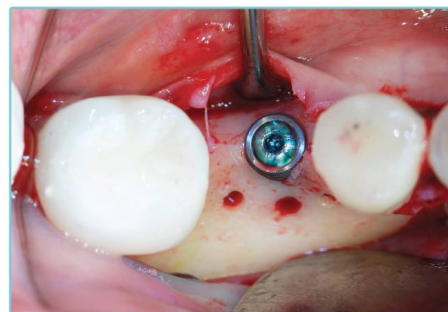
GBR on #46 buccal bone



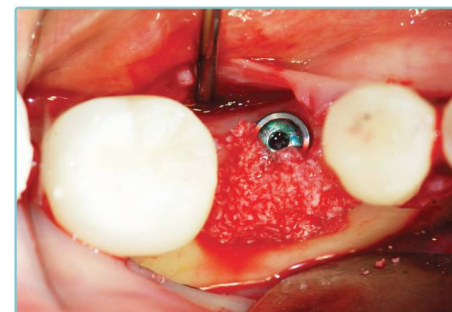
1 Pre-op occlusal view



2 Pre-op buccal view



3 Implant placement (7.18.2014)



4 Bone substitute, THE Graft



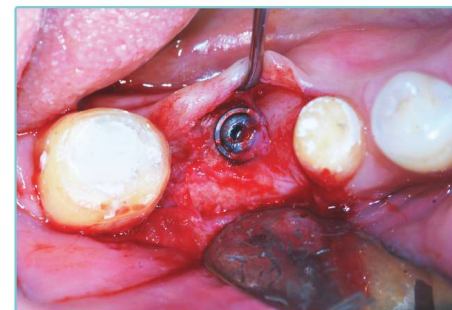
5 Resorbable membrane, BioCover



6 PTFE suture, BioTex

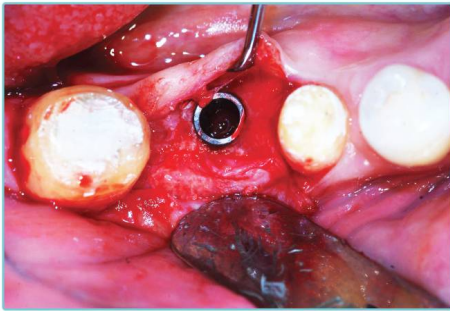


7 Soft tissue, well cured



8 Re-entry for 2<sup>nd</sup> surgery  
(10/14/2014)





9 Cover screw removed



10 Healing abutment



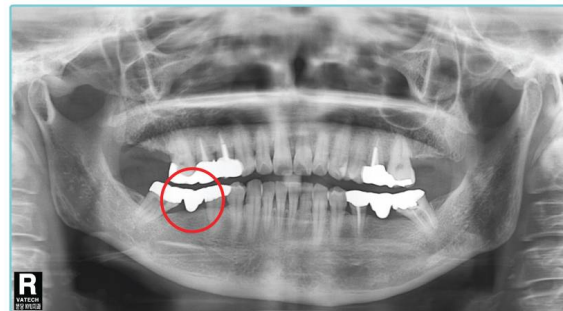
11 Soft tissue, well cured



12 Final prosthesis occlusal view  
(11.19.2014)



13 Final prosthesis buccal view



13 Pre-op panorama



14 Post-op panorama



# CASE14



Dr. Jang dental clinic  
Dr. Jang Ji Woong

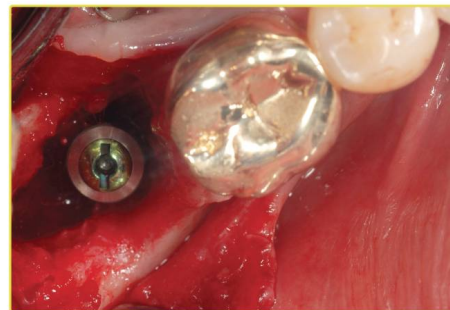
After #47 extraction, GBR on bone defect



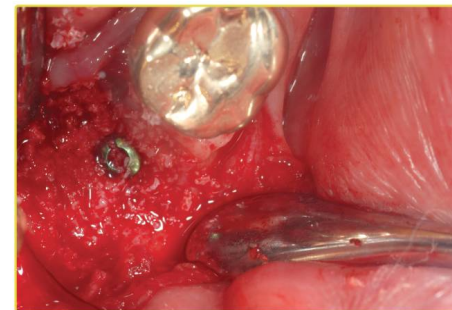
1 Pre-op occlusal view



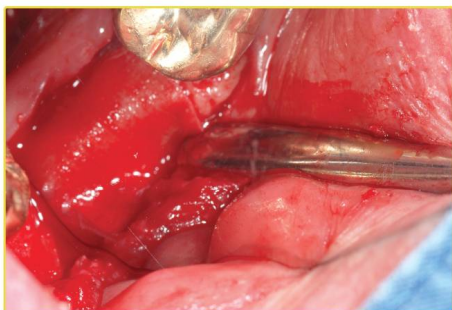
2 Pre-op buccal view



3 Implant placement (7.21.2014)



4 Bone substitute, THE Graft



5 Resorbable membrane, BioCover



6 PTFE suture, BioTex



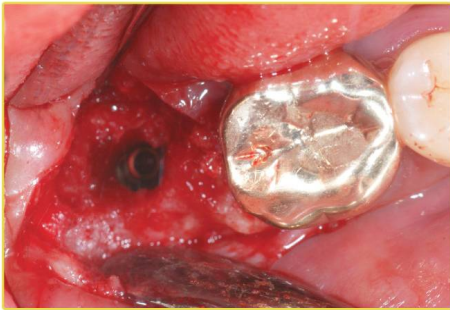
7 Before suture removed



8 Suture removed (8.1.2014)



“ By GBR with THE Graft and BioCover on circumferential bony defect for 2mm above gap, favorable newly formed hard bone tissue and the volume were observed. ”



9 Re-entry for 2<sup>nd</sup> surgery (12.6.2014)



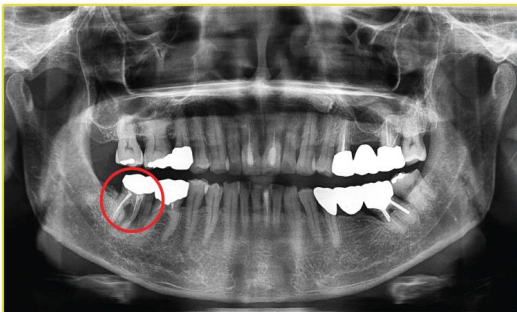
10 Healing abutment



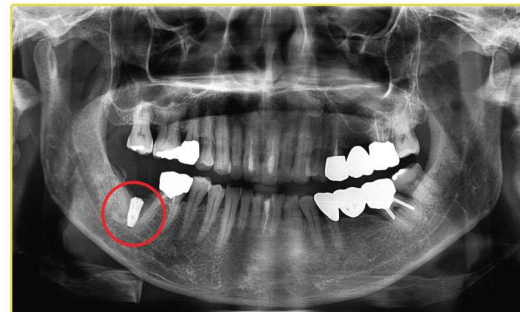
11 Soft tissue, well cured



12 Post-op X-ray



13 Pre-op panorama



14 Post-op panorama

