

Effect of Wing structure on GBR, simultaneously with implantation

Young. Man. Lee

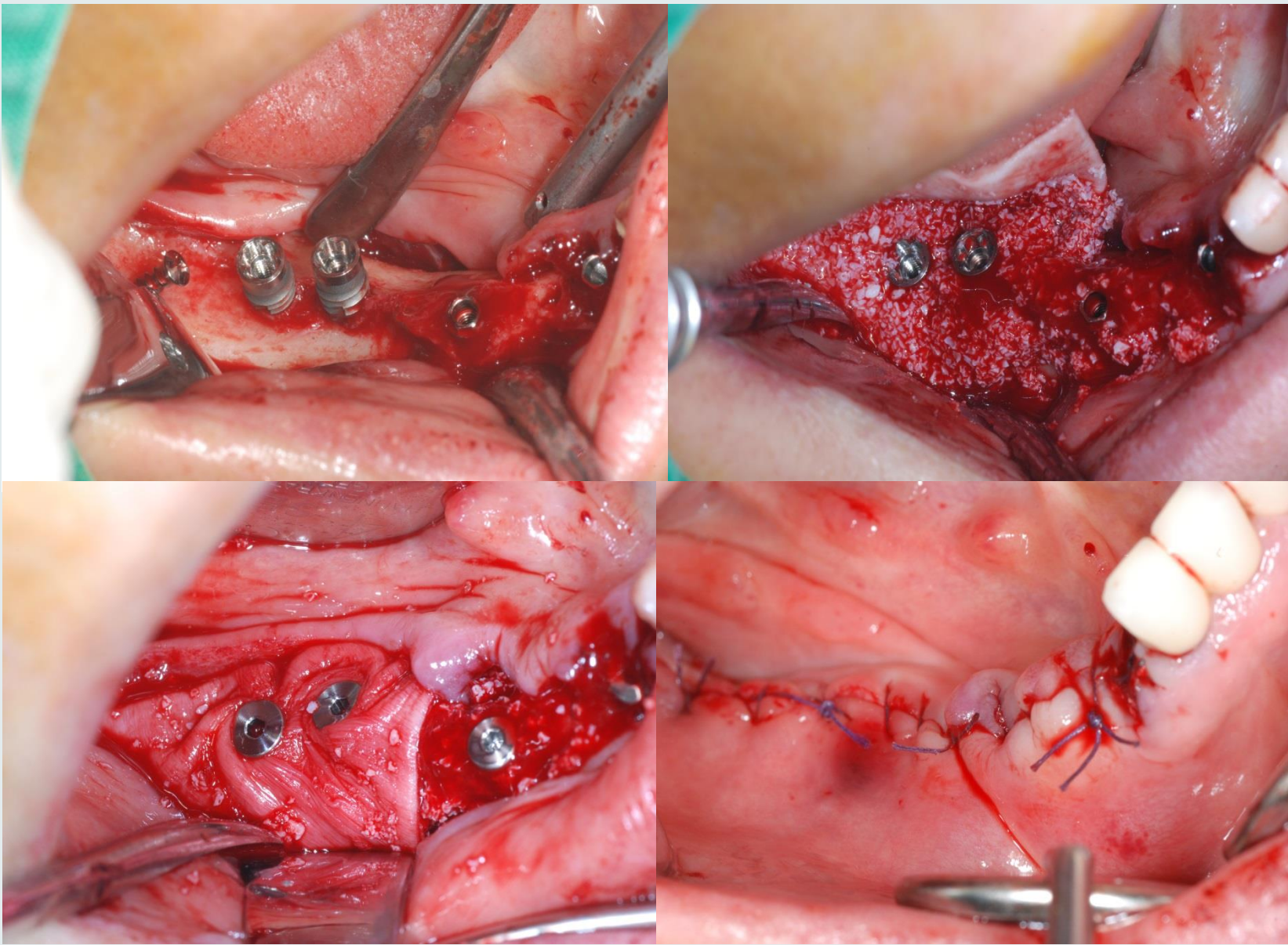
Eun-Pyeong Dental Clinic, Seoul, Korea

Introduction

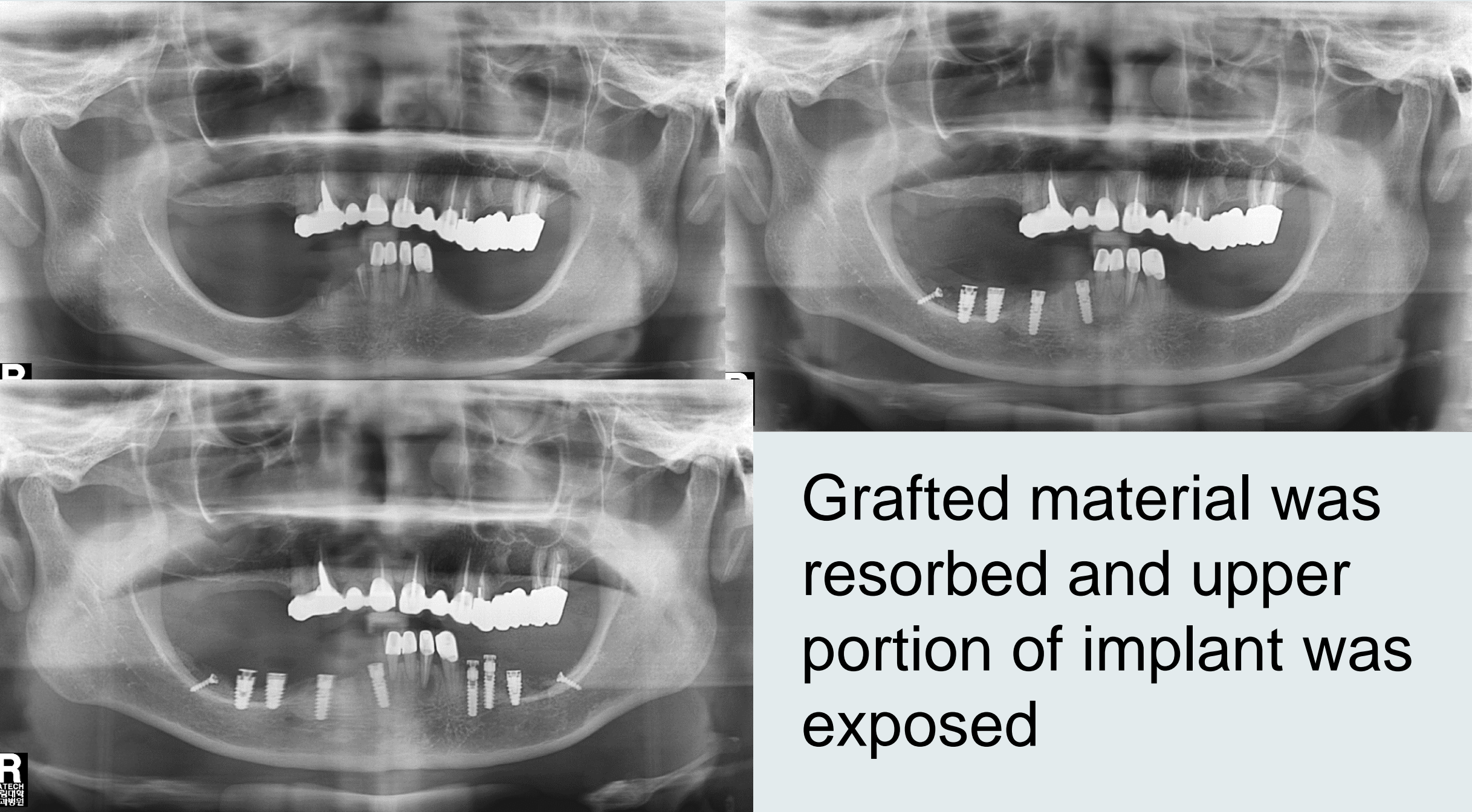
During implantation, there occurs bony defect situations and it makes implant difficult and make the prognosis bed. There are many complications occur where GBR was done. Surgical site dehiscence, infection, loss of graft materials, and so on. We easily meet the situation of bone loss after GBR has been done. Wing structure on the cervical portion of implant was designed and inserted on defected site, with simultaneous GBR. Some times, due to wing structure, effective bone regeneration was gained without the support of membrane.

General type Implant

When GBR was done simultaneously with implant, grafted material may be disappeared during healing period and implant may exposed over the alveolar bone.



Implant was inserted and GBR was done simultaneously



Grafted material was resorbed and upper portion of implant was exposed

Implant for Immediate placement

Wing type implant was inserted on the extracted site where bone defect was existed around implant. Bone regeneration was perfectly done within 3 months



Retained root was seen



Inserting the implant

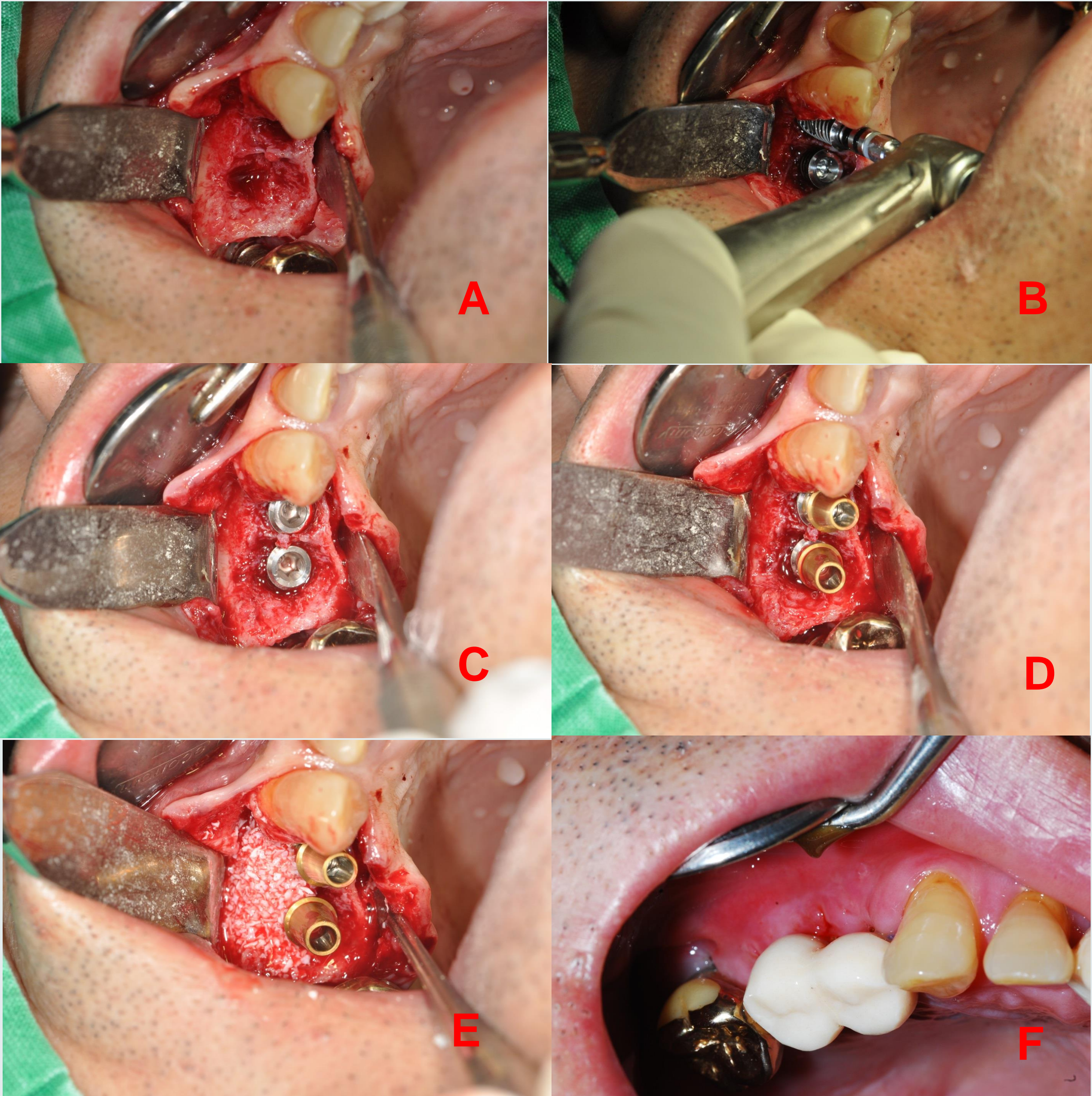
Gap between the implant and bone was seen



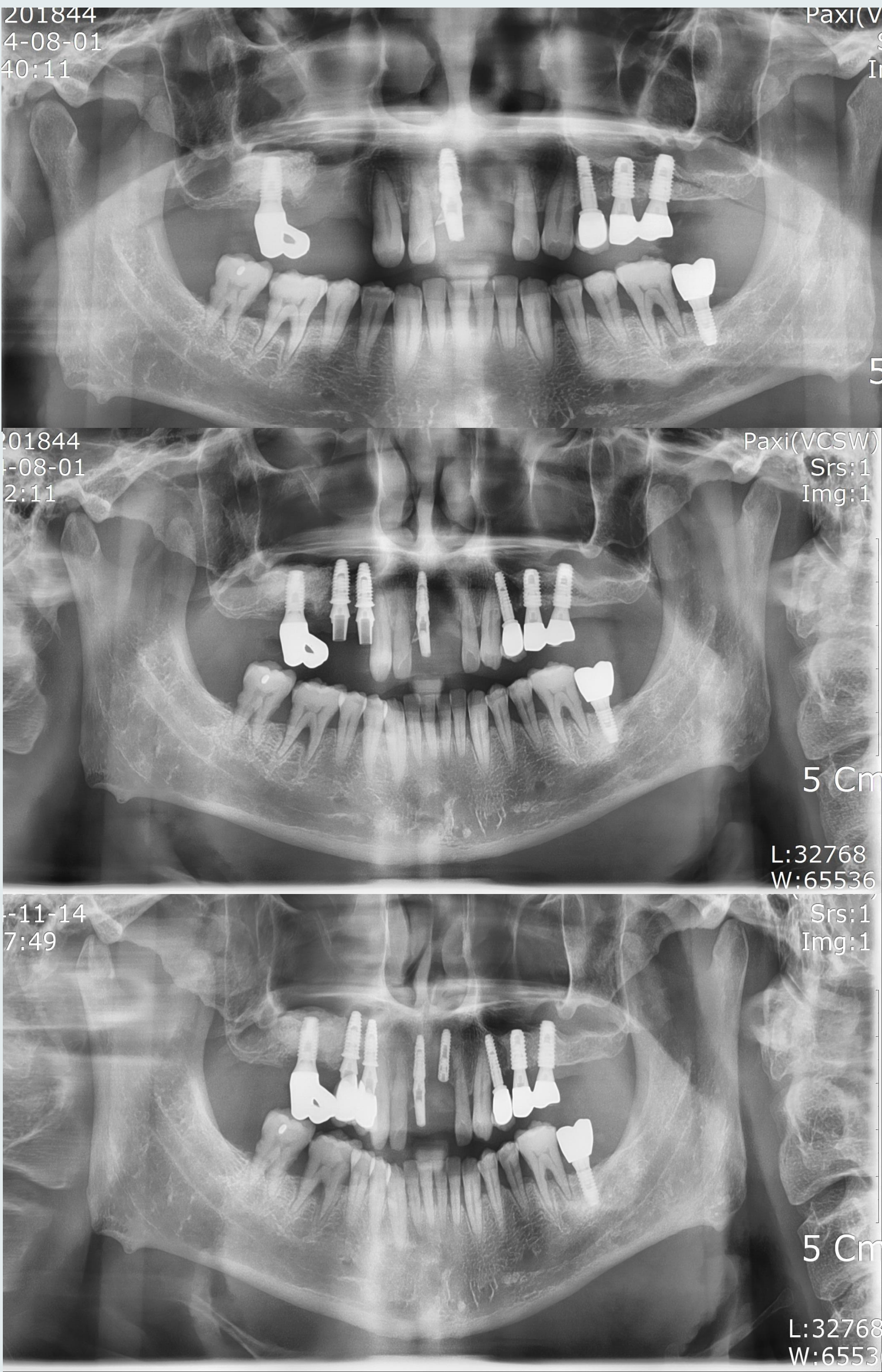
Panoramic view : Just after implant insertion
Peri-apical view : 2 months after insertion

GBR with Multiple Extracted Site

Some times periodontitis results in severe bone resorption. If bony defect is broad, it makes GBR more difficult. But in this case, grafted materials can be stayed under the wing of implant and as a results GBR can be done safely and effectively.



A: Buccal side bone was severely resorbed due to periodontitis. B: Implant was inserted. C: Inserted implant. D: Abutment was connected for immediate loading. E: GBR was Done. F: 2 weeks after implant surgery with well healed site



Before Surgery

Just After Surgery

4 Months after Surgery; Final restoration was inserted

Conclusions

For GBR during implant placement, grafted material must be protected from surrounding soft tissue. Membrane is used for this purpose but it has limited effect to keep the grafted materials from dissipation. If implant itself has keeping effect of grafted material it would be very helpful to do GBR, and the **wing structure** of implant plays a roll for membrane during GBR procedure