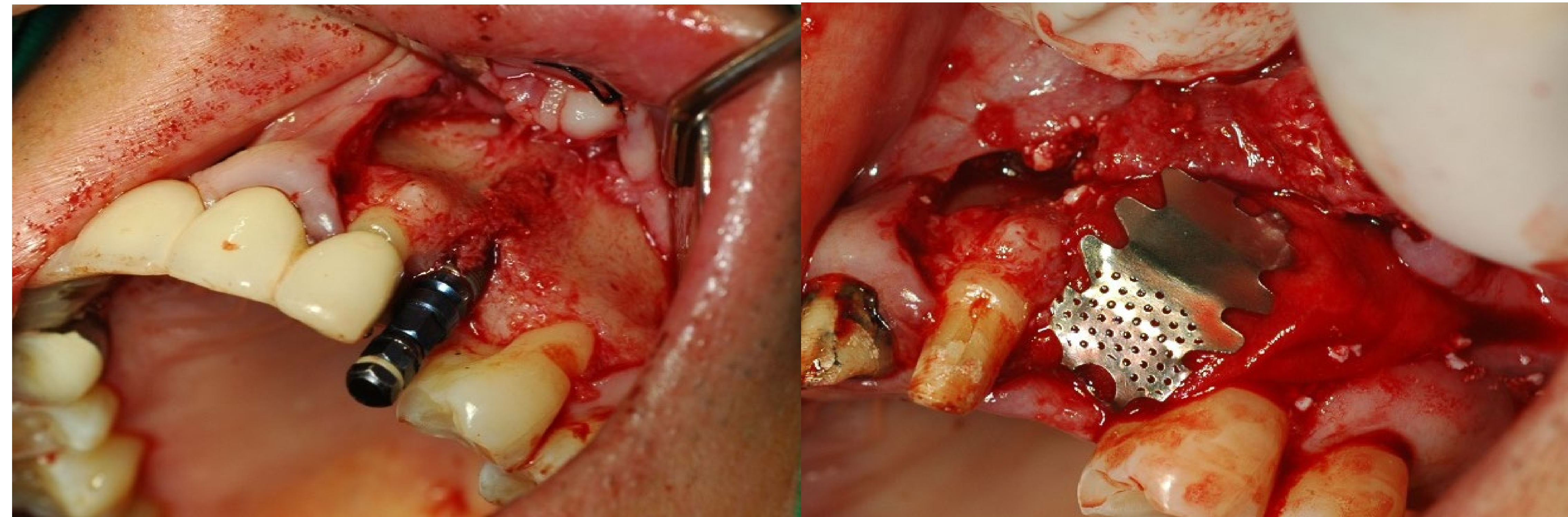


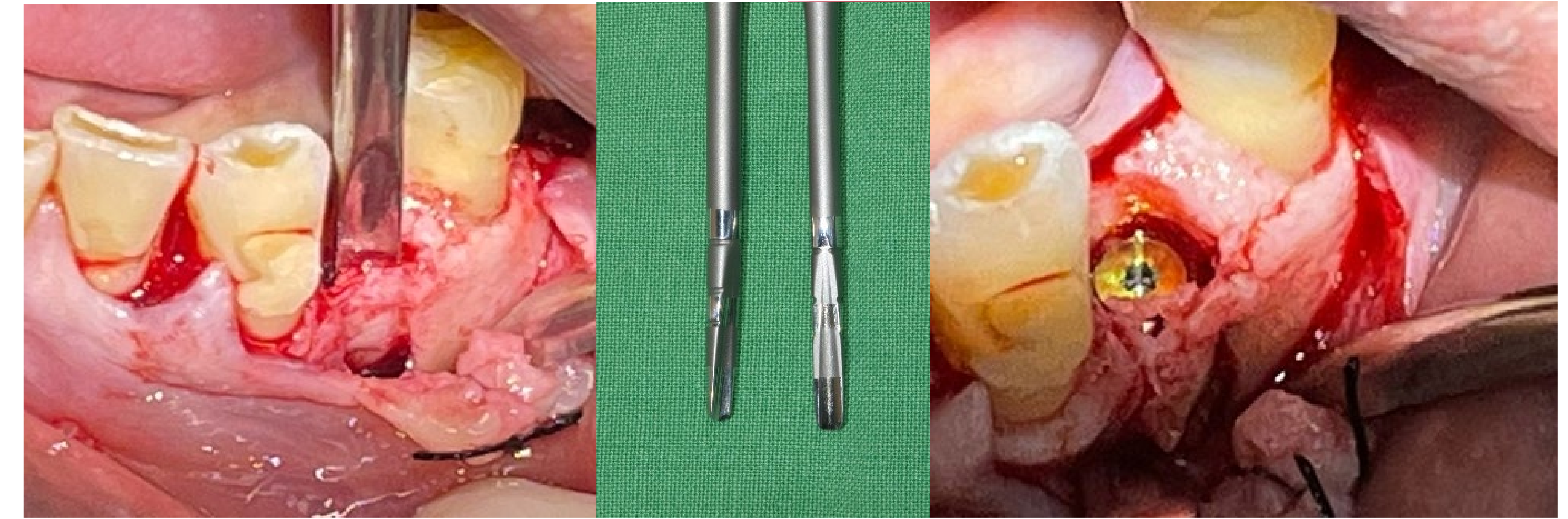
Overcome The Narrow Ridge Simply With Specially Designed Chisel

Dong Ju Choi¹, SoWon Bok², Young Rae Maeng³

¹ ²Department of Oral and Maxillofacial Surgery, life Dental Clinic, ³Seoul Dental Clinic



When we meet narrow ridge of small area where teeth has been lost, the first choice to solve the problem is GBR. But it is difficult for non-expert clinicians And as a result sometimes by this kind of treatment leave unwanted situation or failure may occur.



We use specially designed round tipped chisel for separating buccal part of alveolar bone from lingual part of alveolar bone and reposition it to buccal side. Then implant is placed between the buccal and lingual bone.
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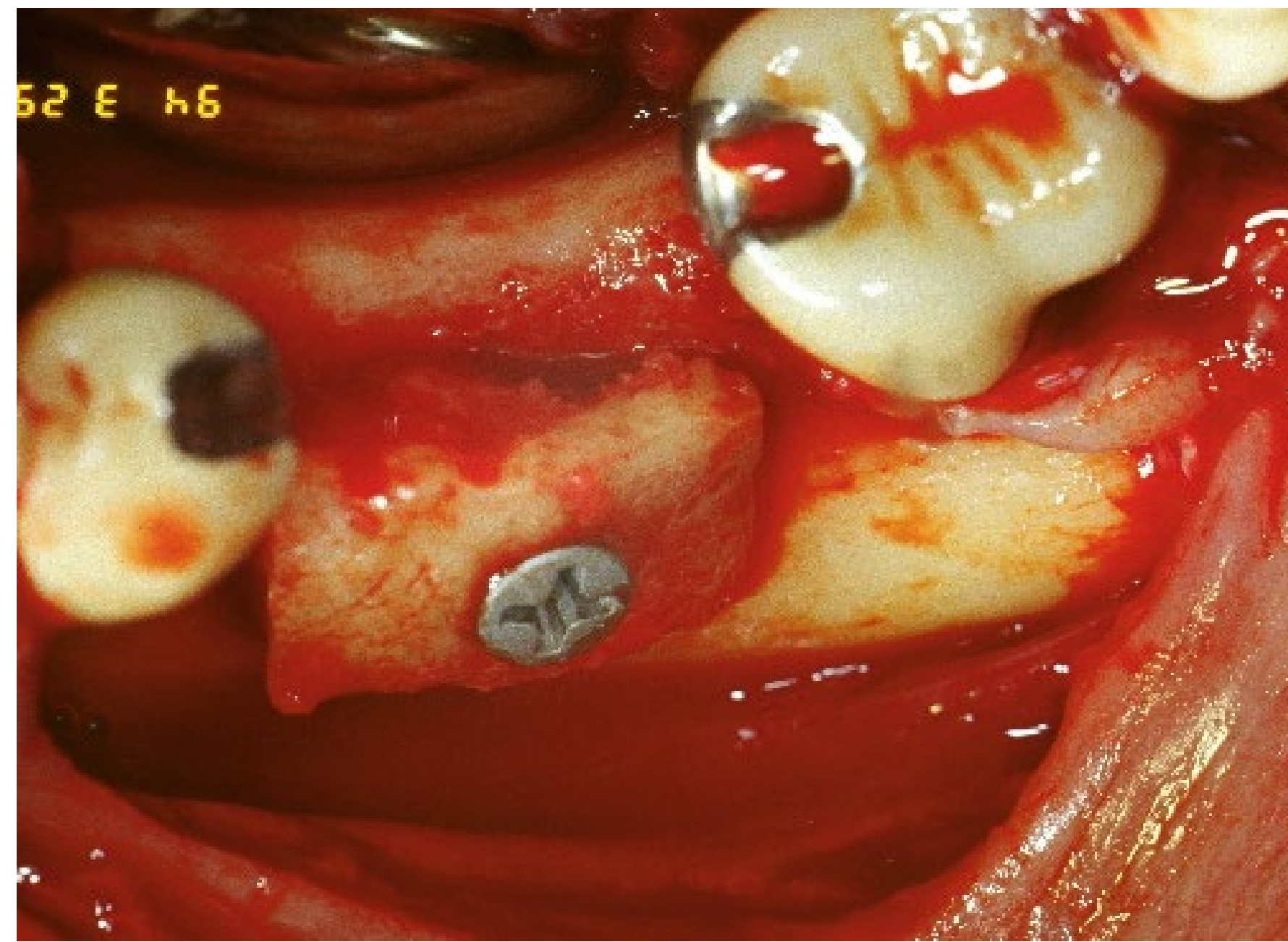
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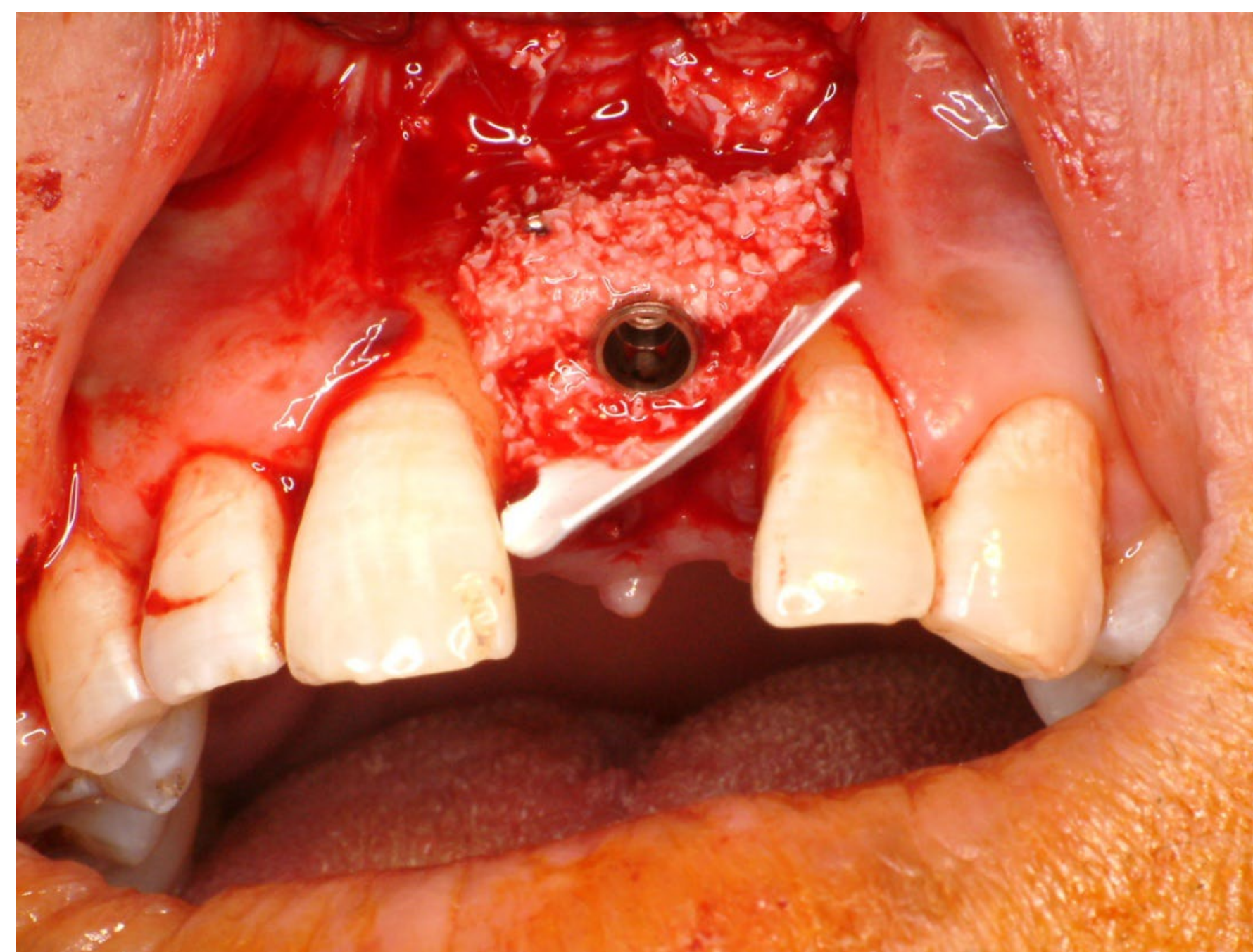
Various techniques to treat the narrow ridge

•Block bone graft



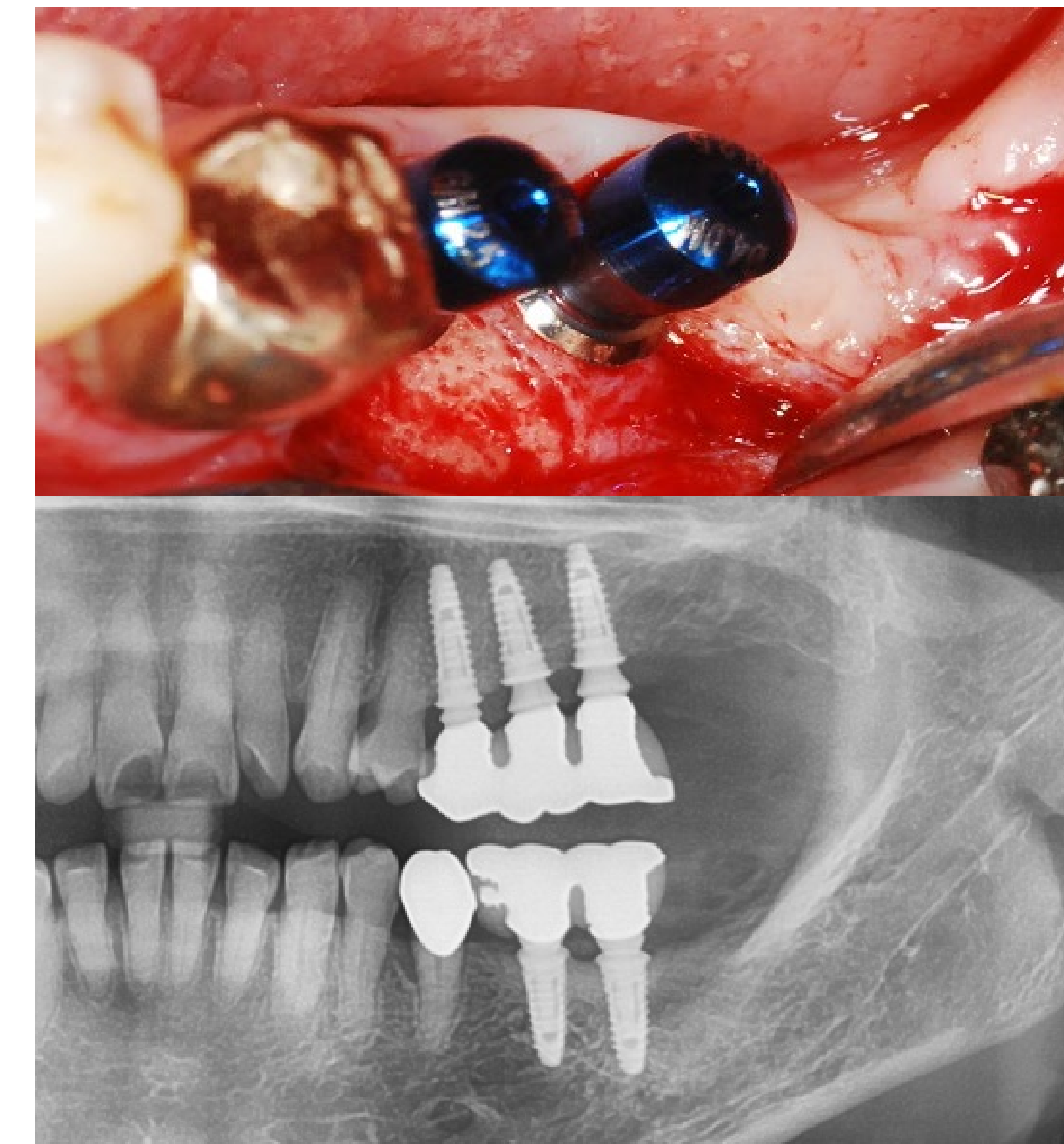
- Block bone graft is one of effective choice for augmenting reduced alveolar bone
- But it needs skillful techniques and may leaves donor site morbidity

•GBR with membrane



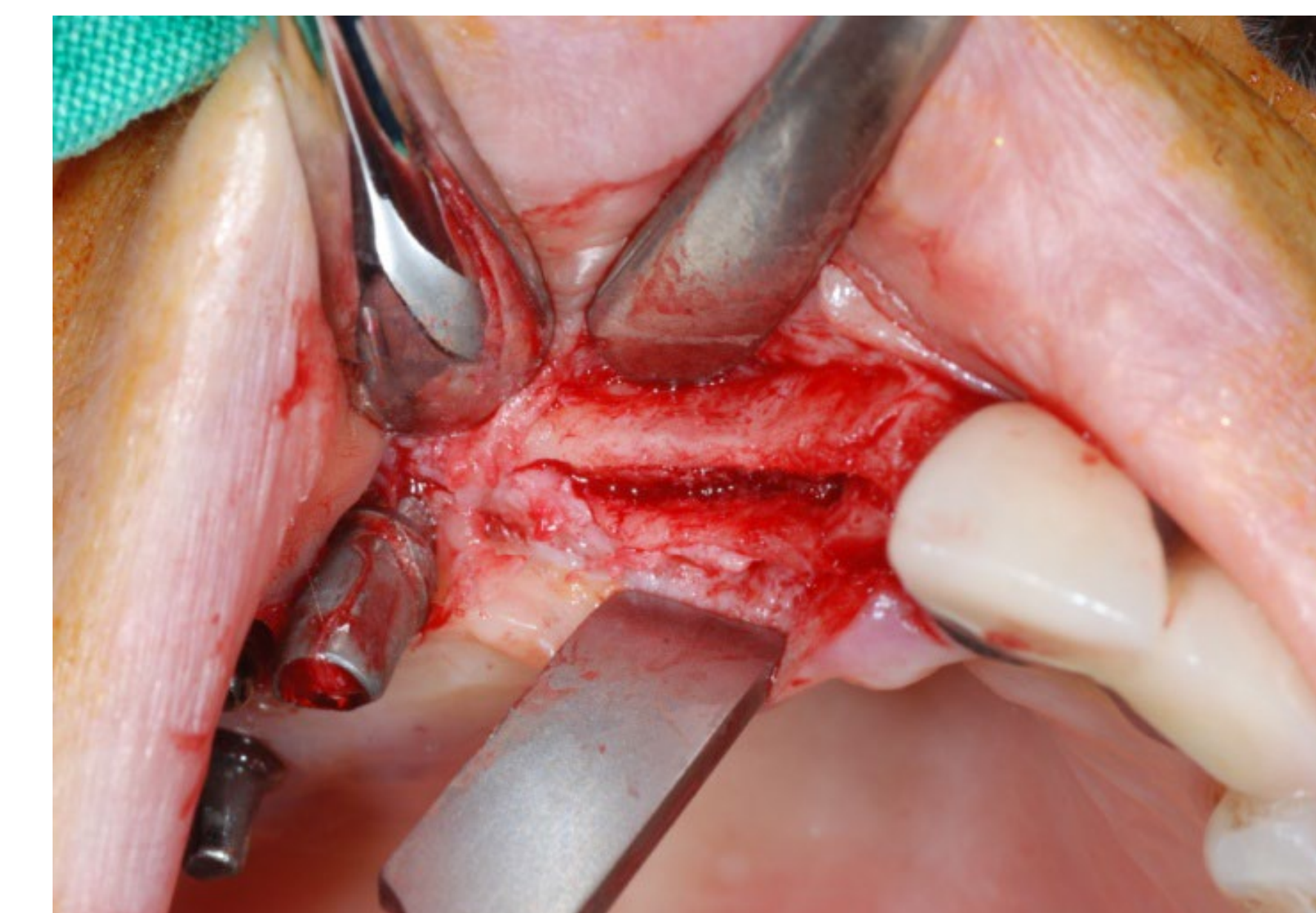
- GBR with membrane can avoid donor site morbidity
- Various types of graft materials can be chosen
- But it also needs skillful technique

•Narrow Implant



- Ghazal SS, et al (2019)
: Narrow implant shows significantly smaller crestal bone level change
But resistance to fracture is reduced 25%

•Ridge Split



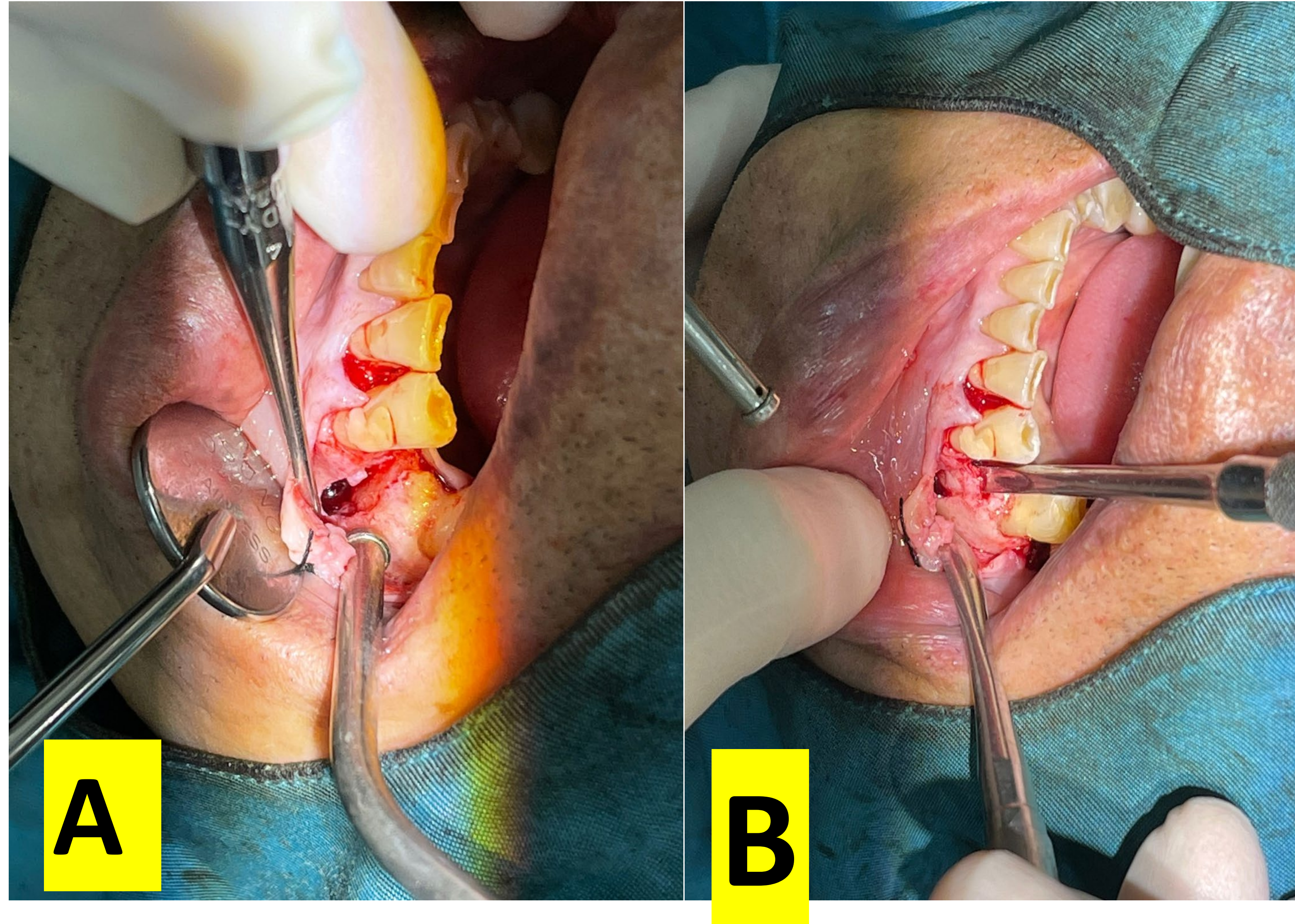
- Ridge split is effective for atrophied alveolar ridge
- This procedure is usually used for narrow ridge of long span edentulous ridge

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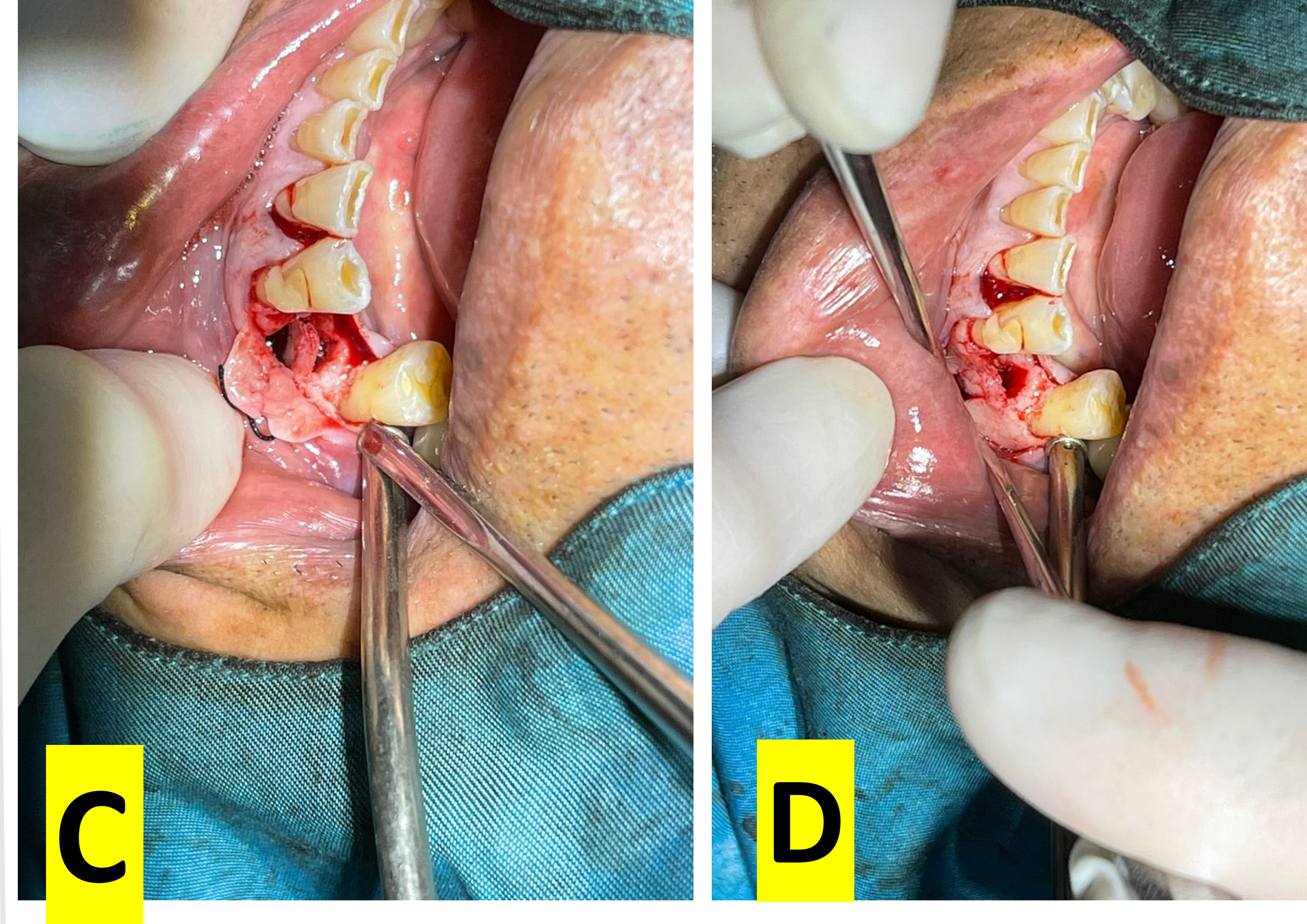
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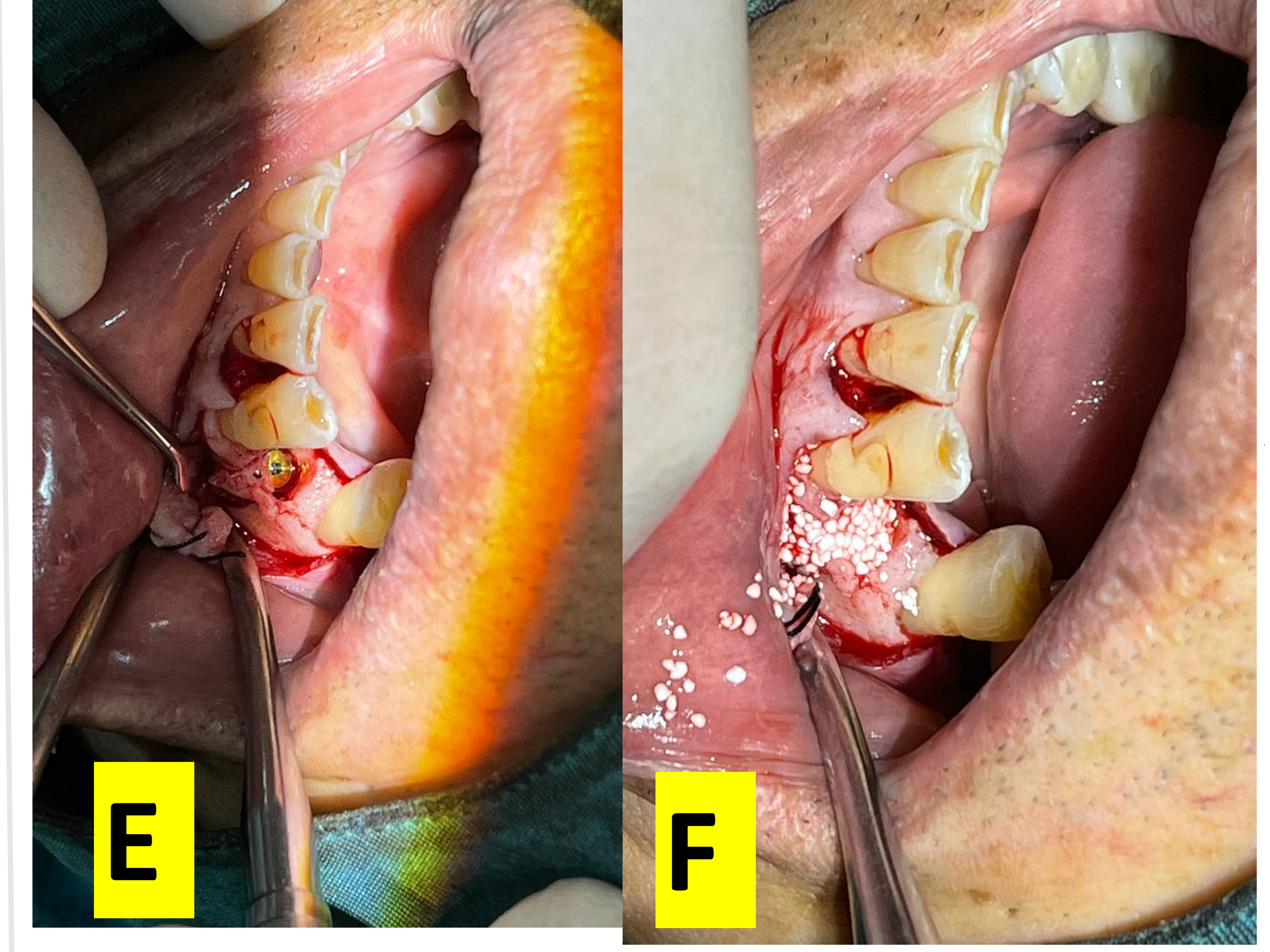
Seperation on narrow ridge



Buccal side alveolar bone is severely resorbed.
Implant thread may expose in this case, so extra treatment is needed
Buccal side of remaining bone is separated with specially designed chisel



The chisel has rounded tip and through handle side the shank is gradually thickened and round shape cutting site is seen.
Separated bone is shifted to buccal side and it makes bony shield, which prevent implant exposure

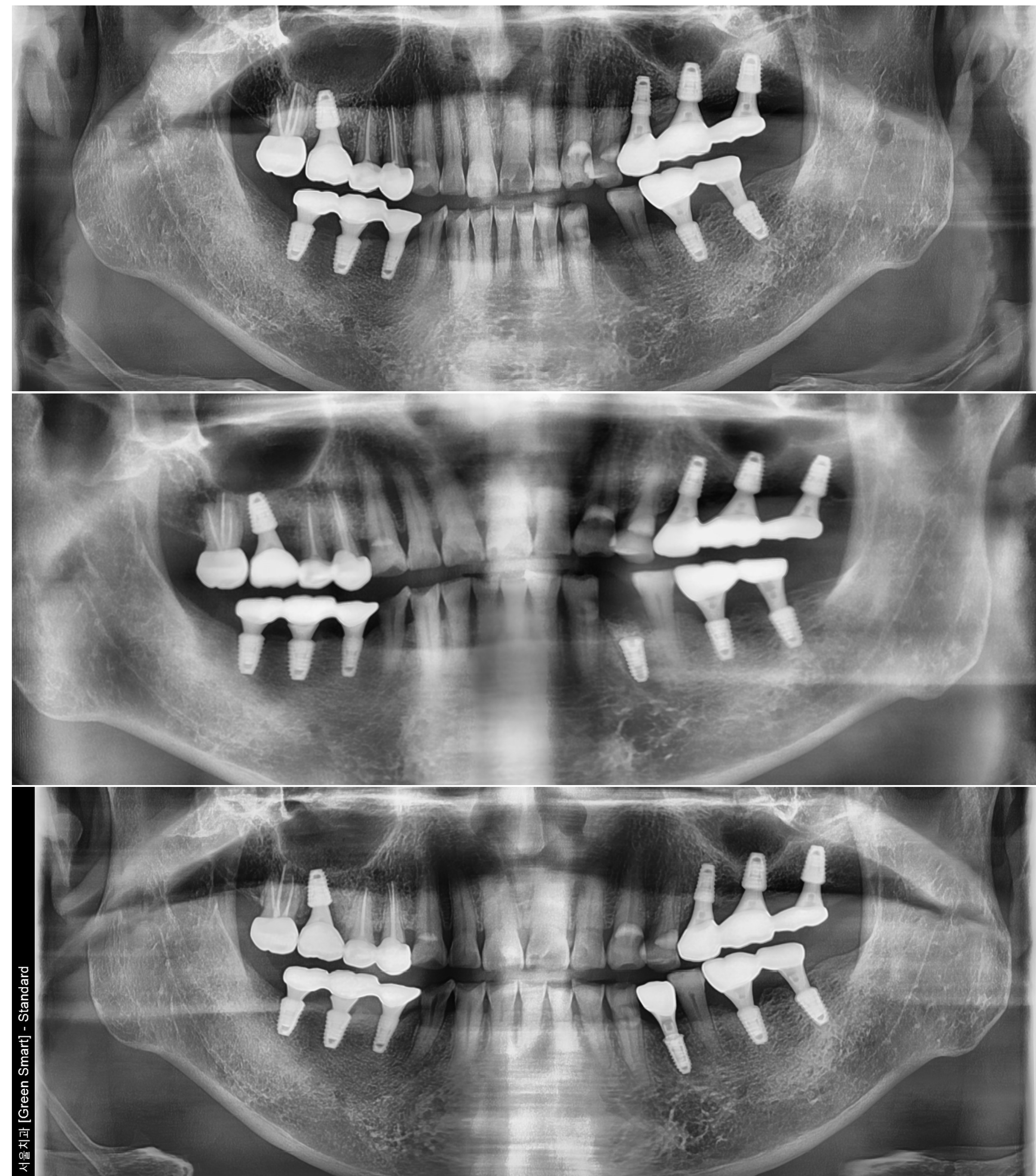


Implant is seated between buccal and lingual side of alveolar bone.
In this case, no implant expose is seen
Small amount of extra graft material is added with or without membrane

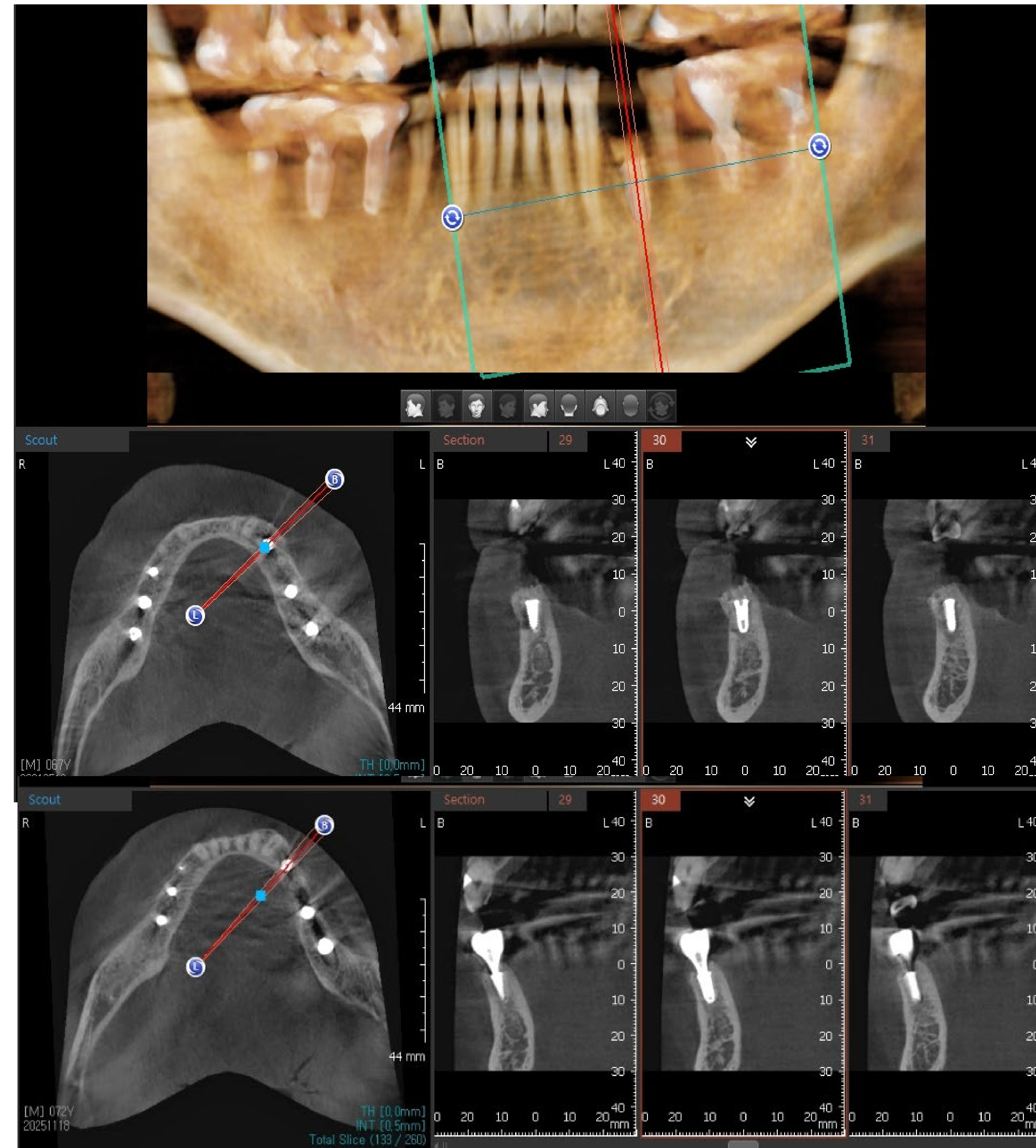
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Alveolar bone of lower left 2nd premolar shows thin bucco-lingual dimension.
Implant is seated well and after 3 years, alveolar bone around implant is very stable



CT view shows stable peri-implant alveolar bone during 7years follow up period with no peri-implant problems

Conclusions

1. If the edentulous alveolar bone is too much resorbed, it is impossible to do implant without extra procedure.
2. Narrow diameter implant may considered for the first choice but some times the remaining bone does not allowed even narrow diameter implant
3. Block bone graft or guided bone regeneration(GBR) is one of effective tool to widen the alveolar bone but this procedure is skill sensitive so it needs a lot of experiences. And it needs long treatment time and some complications may occur.
4. Separate the alveolar bone using this chisel, the process is relatively simple and less time is needed to solve the narrow ridge. Learning curve is short and after accommodate it feels very easy to use