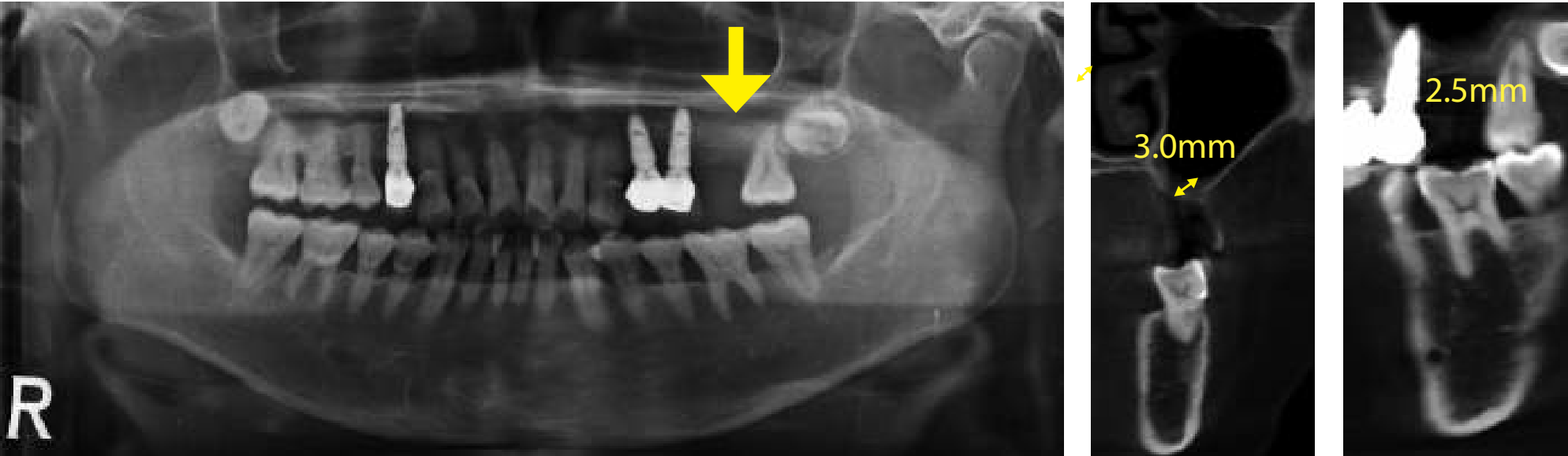
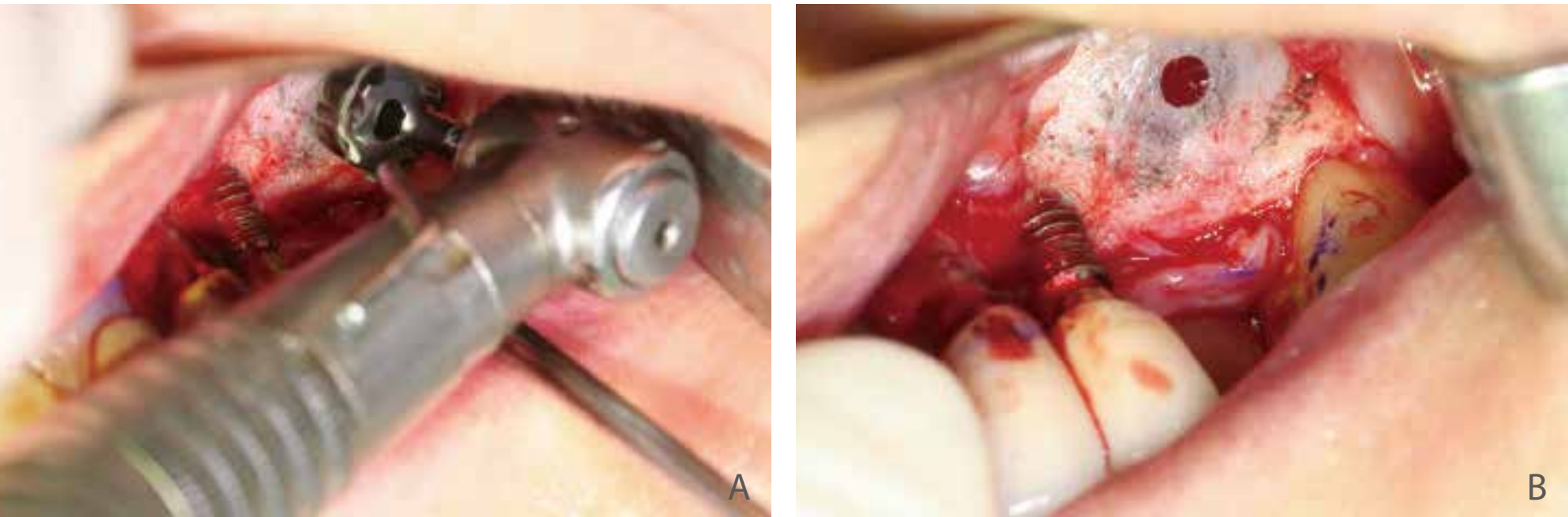


Case #2

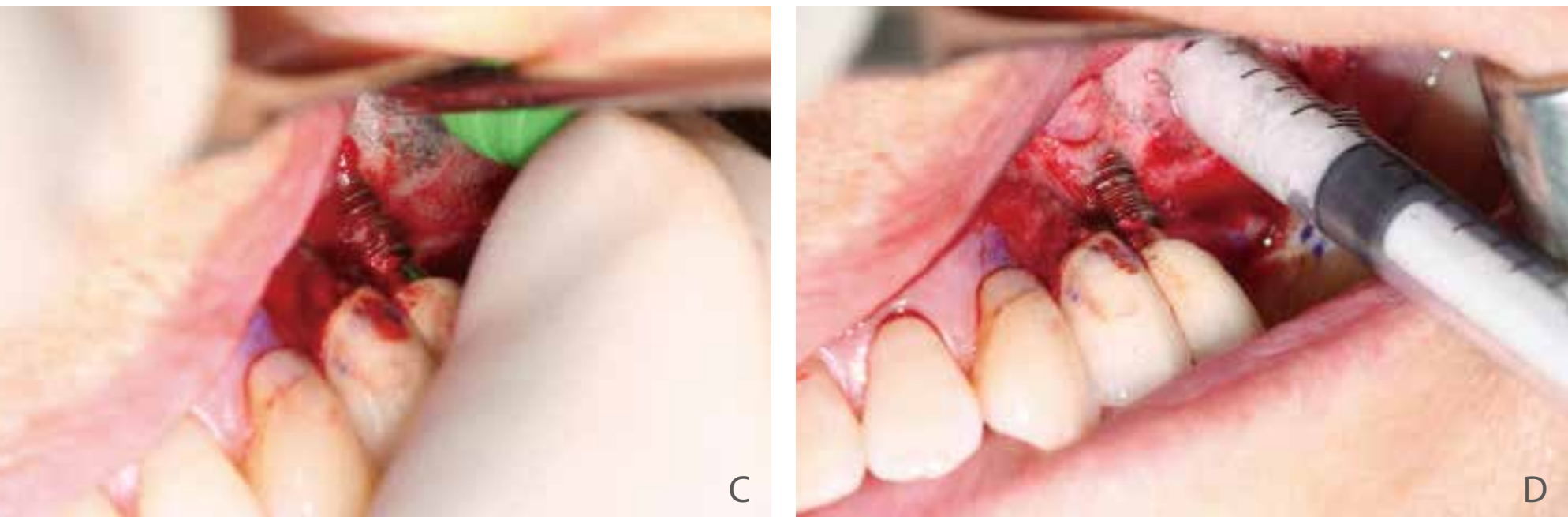
Sex/age : Female/57
CC : Refer from LDC for #26 sinus membrane lift
PI : #26 missing state. (Post-extraction 1year)
#26 alveolar bone atrophy (Height and width)
Treatment : #26 sinus membrane lift and bone augmentation (lateral approach) with allograft material



Pretreatment panoramic radiographs and CT scan (2016.07.28)



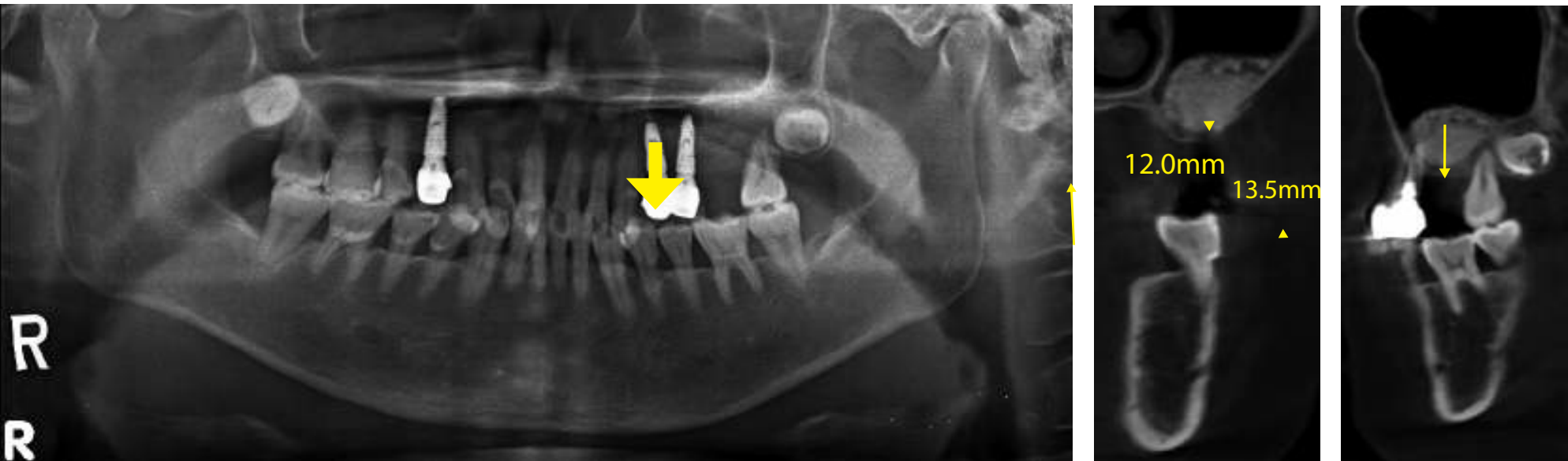
A-B. Lateral wall is opened using lateral drill.



C. The membrane is lifted by slowly injecting of saline solution using a 1cc syringe and hydraulic lifter.

D. GBR performed with Allograft material

Maxillary sinus membrane lift with Allograft material 1.25g



(POD 3 months, CT scan) Bone height is enough for osseous implant.

Result

- In both cases, postoperative recovery was uneventful with no infection and membrane tearing.
- From the Second case, after sinus membrane lift, the residual bone height was increased from 3mm to 12mm to obtain sufficient height for osseous implants without complications.
- In the First case, although the residual bone height was not enough, the quality of bone was good, so osseous implantation was done and initial torque was good(18N, 21N).
- Post 4 months later in First case, implant stability was measured in all directions with resonance frequency analysis(Ostell® ISQ, Ostell AB, Gothenburg, Sweden) and the results were ISQ 85/85(#26i) and 82/82(#27i).

Discussion

- There are controversial about the way of sinus lift. It is hard to tell which approach is better either crestal or lateral. It is important to select the method defend on the case because there are many indications.
- Although the lateral window technique using a modified Caldwell–Luc approach still represents the standard procedure for sinus floor augmentation in the posterior maxilla region, patients frequently suffer from considerable postoperative pain and swelling.
- The most common intraoperative complication is a tear or perforation in the Schneiderian membrane, which occurs at a rate of 7% to 35%.
- These complications are defend on skills of surgeon and condition of patient. In these cases, although residual bone is not sufficient and Schneiderian membrane is thin, sinus elevation technique using water lift system made surgery easy and safe, especially via the lateral approach.

Reference

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2. Jesch, P., Bruckmoser, E., Bayerle, A., Eder, K., Bayerle–Eder, M., & Watzinger, F. (2013). A pilot–study of a minimally invasive technique to elevate the sinus floor membrane and place graft for augmentation using high hydraulic pressure: 18–month follow–up of 20 cases. Oral surgery, oral medicine, oral pathology and oral radiology, 116(3), 293–300.
3. Mazor, Z., Peleg, M., & Gross, M. (1999). Sinus augmentation for single–tooth replacement in the posterior maxilla: a 3–year follow–up clinical report. International Journal of Oral and Maxillofacial Implants, 14(1), 55–60.