

# Simultaneous Implant Placement and Guided Bone Regeneration

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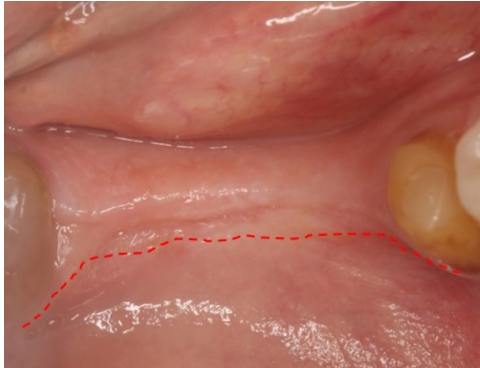


## Patient History

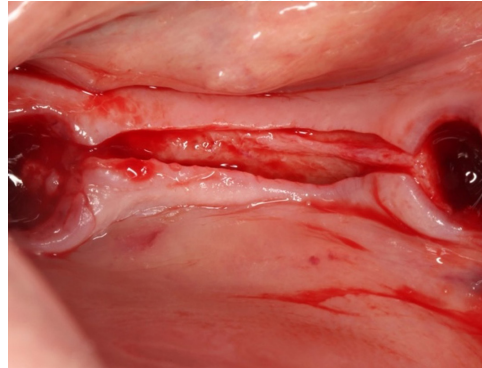
A 49-year-old female patient presented with missing mandibular right first and second molars (teeth #30 and #31). Clinical examination revealed severe horizontal ridge atrophy associated with a mild vertical bone deficiency and a localized soft tissue defect within the edentulous area

## Process & Conclusion

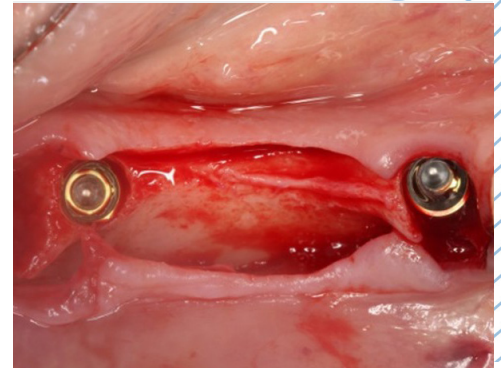
Clinical and radiographic follow-up demonstrated successful implant osseointegration, stable peri-implant tissues, and long-term maintenance of regenerated hard and soft tissues.



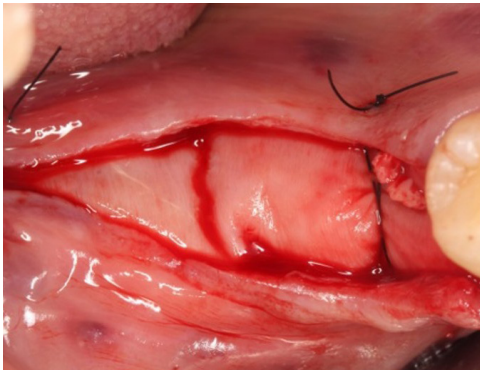
Preoperative clinical view demonstrating missing mandibular right molars (#30 and #31).



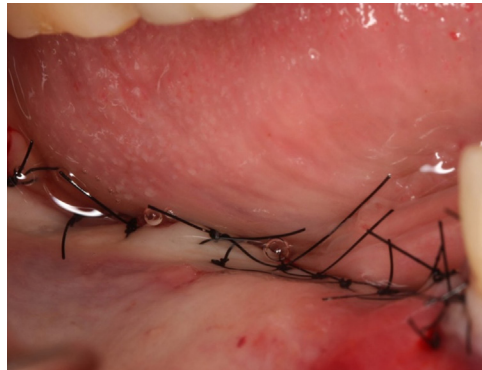
Intraoperative view following atraumatic extraction of teeth #29 and #32.



Immediate placement of two implants in prosthetically driven positions.



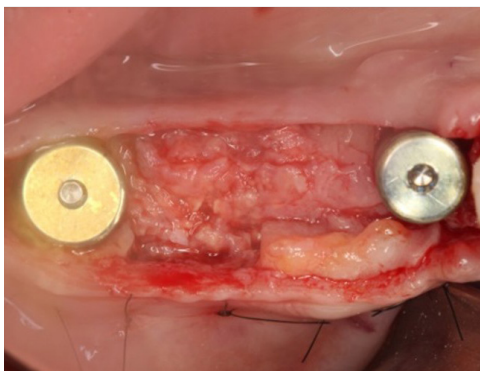
Collagen membrane stabilized using buccal titanium fixation pins and suture fixation.



Primary tension-free wound closure achieved using a two-layer suturing technique.



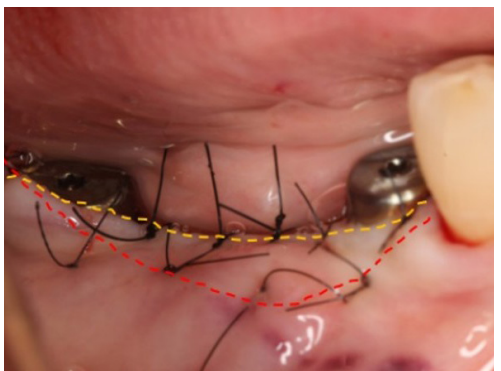
Re-entry surgery after 6 months demonstrating complete hard tissue regeneration and successful reconstruction.



Placement of healing abutments and simultaneous connective tissue grafting harvested from the palate.

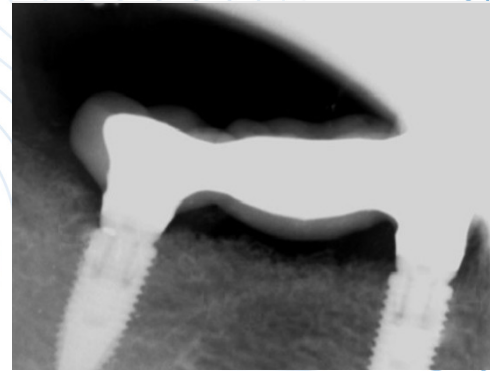


Comparison of the hard and soft tissue profile before and after guided bone regeneration demonstrating complete reconstruction of the horizontal ridge deficiency and restoration of the vertical ridge contour.

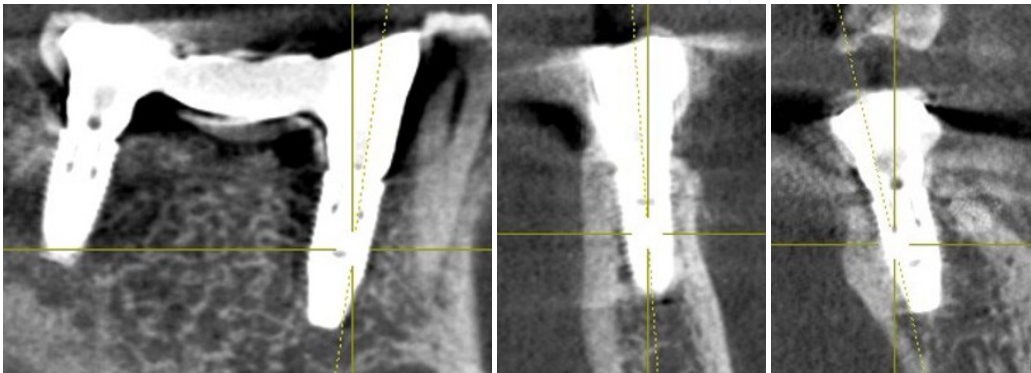




Definitive implant-supported bridge supported by two implants demonstrating favorable emergence profiles and healthy peri-implant soft tissues.



Periapical radiograph obtained following delivery of the definitive implant-supported restoration in 2021.



Five-year follow-up CBCT demonstrating stable peri-implant bone levels, preservation of regenerated ridge dimensions, and long-term maintenance of the reconstructed alveolar ridge.