

Immediate Bone Grafting on a Compromised Maxillary Molar Site Restores Alveolar Ridge Width and Height

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Patient History

A 38-year-old healthy female patient presented with a missing single FPD on the upper left first molar.

Process & Conclusion

The tooth was extracted due to poor prognosis, and ridge preservation was performed using InterOss® and a collagen membrane. At 5 months, sufficient bone regeneration allowed implant placement. The 7-year follow-up demonstrated stable bone and healthy soft tissue, confirming long-term success of the ARP procedure.



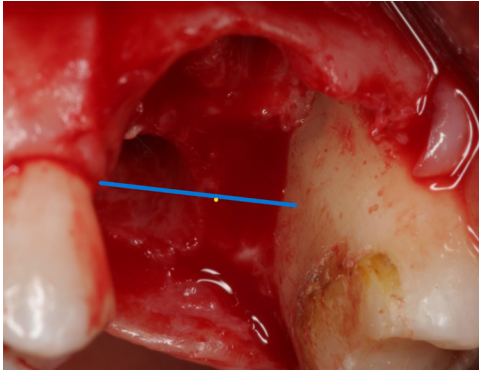
Clinical presentation.



A periapical radiograph (PA) revealed PARL on the mesial root, bone loss around the distal root, and recurrent decay leading to possible root fracture.



The prognosis of the tooth was hopeless, and the tooth was removed.



The buccal view revealed vertical bone loss on the buccal and mesial aspects of the upper left second molar.



A delayed implant placement was planned, and the alveolar ridge preservation (ARP) procedure was performed with InterOss® anorganic cancellous bone granules (0.25-1.0mm).



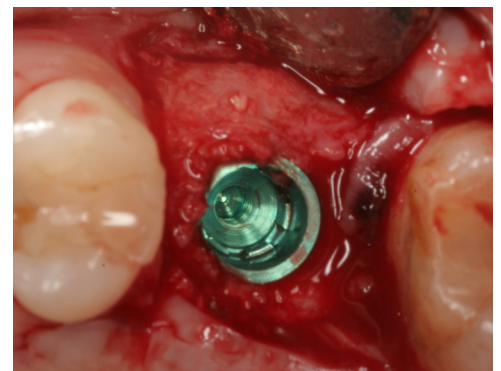
A non-cross-linked collagen barrier membrane was placed over the bone graft.



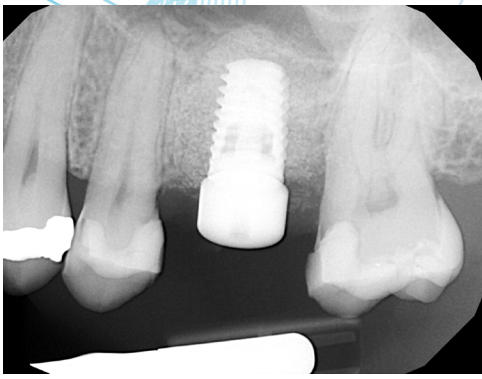
An immediate post-bone grafting PA.



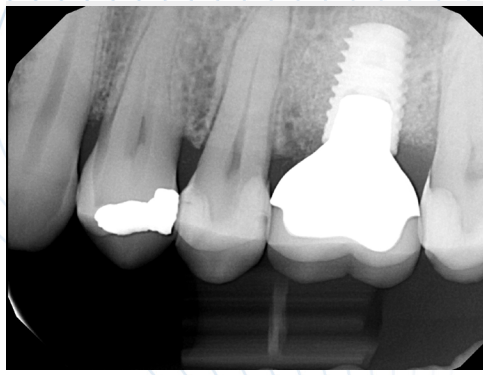
The patient returned for dental implant surgery 5 months after the ARP, and restored buccal and distal bone levels were noted.



A dental implant was placed into the regenerated bone.



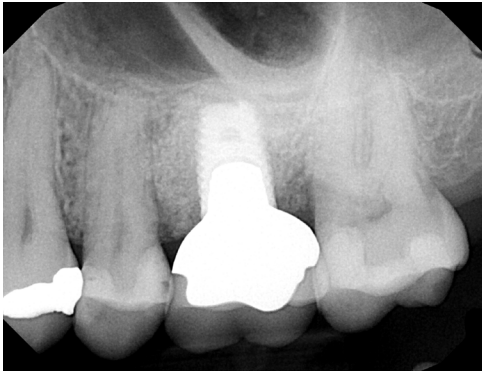
A PA taken on the day of the implant surgery.



The PA taken after the implant crown restoration revealed good bone level supporting the implant.



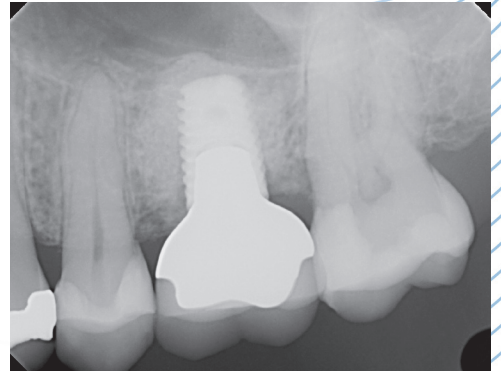
A clinical picture of the restored area.



A 2-year post-ARP PA revealed remnants of bone graft, but maintenance of vertical bone height.



A 4-year post-ARP PA demonstrating stability of the regenerated bone around the implant.



A 7-year post-ARP PA demonstrating a long-term maintenance of the supporting bone around the implant.



Healthy soft tissue around the implant restoration noted at 7-year post ARP.