



Case Study

Bilateral Sinus Augmentation with Puros Cancellous Bone Allograft and Placement of Four Zimmer® Trabecular Metal™ Dental Implants in the Edentulous Maxilla

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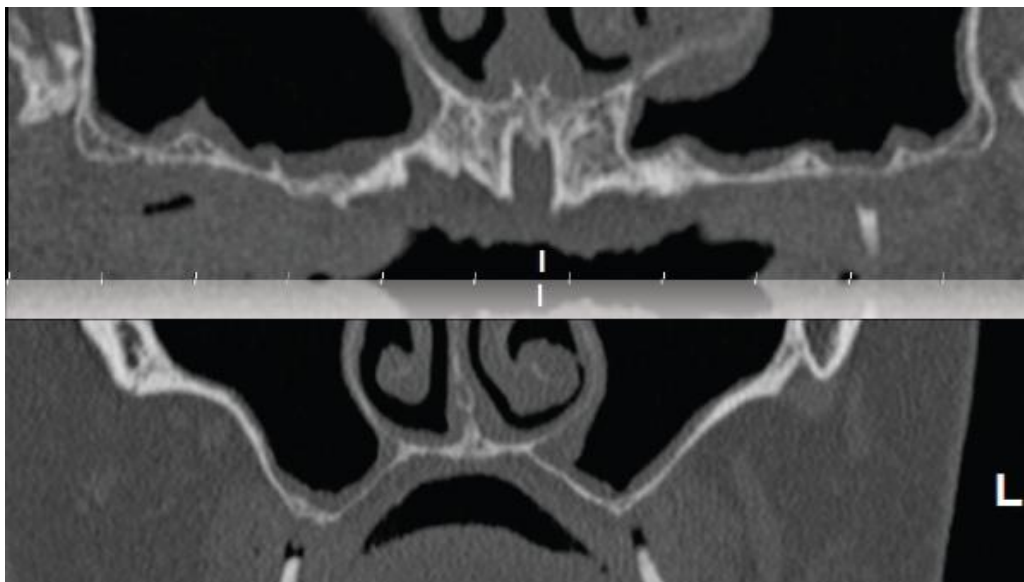
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The patient presented with a severely resorbed edentulous maxillary ridge.



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Computed Tomography (CT) scans shows pneumatized sinuses with minimal bone height available for dental implant placement due to the close proximity of the sinus floor.



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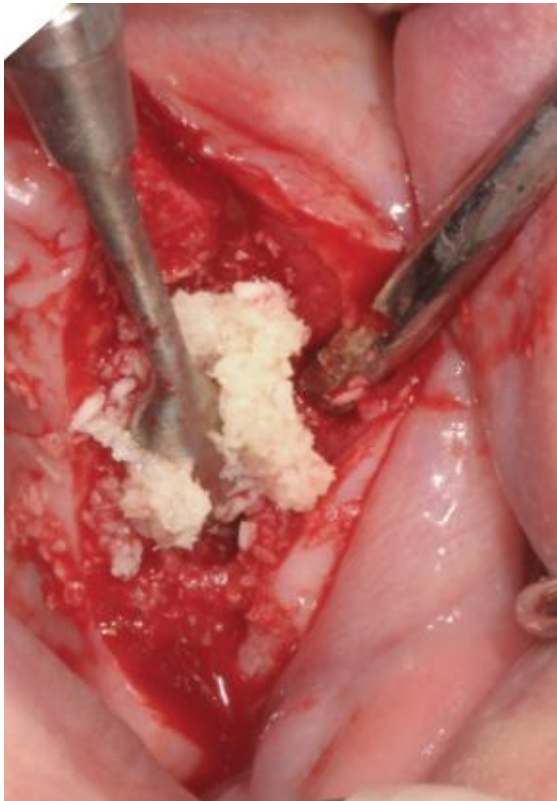


The sinus cavity was accessed utilizing a crestal window approach according to the technique of Carlo M. Soardi and Hom-Lay Wang (New Crestal Approach for Lifting Sinus in the Extremely Atrophic Upper Maxillae¹.

1. Clinical Advances in Periodontics. Posted online ahead of print on 28th of March, 2012 at: <http://www.joponline.org/action/doSearch?target=article&journal=cap&searchText=Soardi&filter=single&x=34&y=8>



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Hydrated composite graft of *Puros* Cortical Particulate Allograft (80%) and *Puros* Cancellous Particulate Allograft (20%) materials is gently packed into the prepared cavity between the residual sinus floor and the elevated Schneiderian membrane.



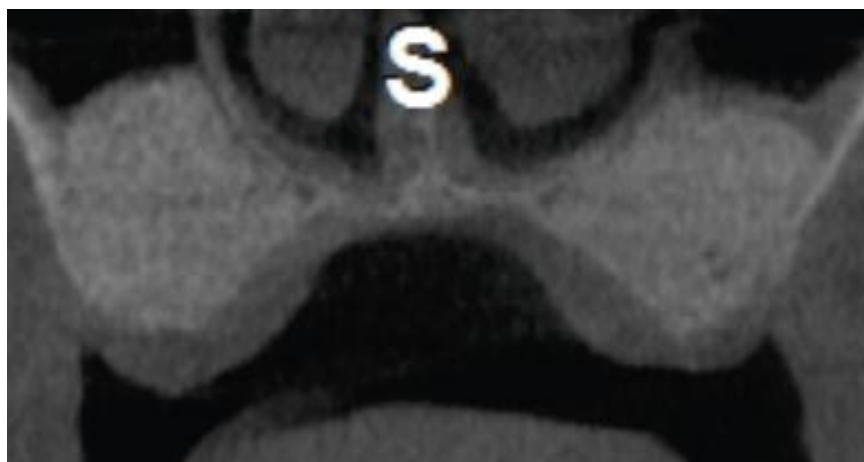
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Buccal view shows the bone graft material in place. A collagen membrane is placed over the graft material, then the soft tissues are mobilized and sutured for tension-free closure.



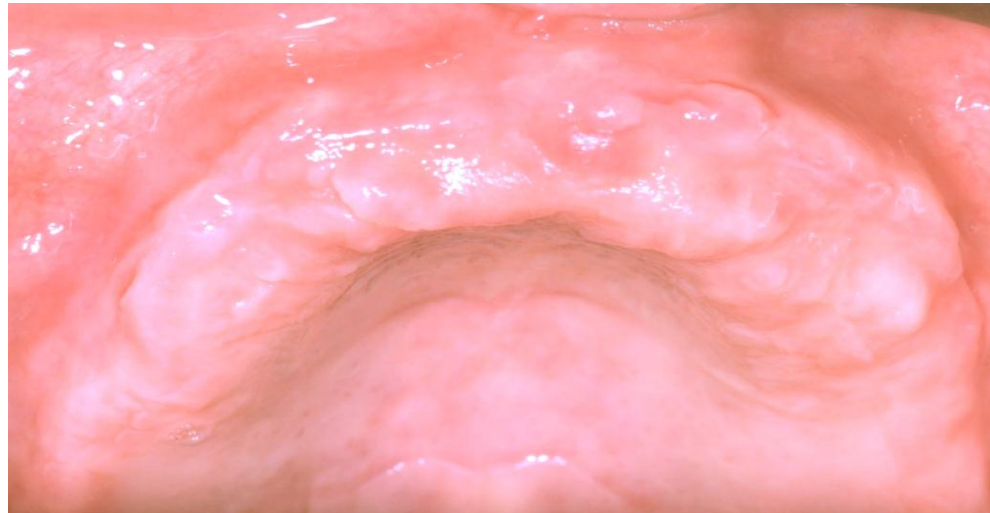
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Post-operative CT scan shows significant gains in vertical height provided by the bilateral sinus grafts.



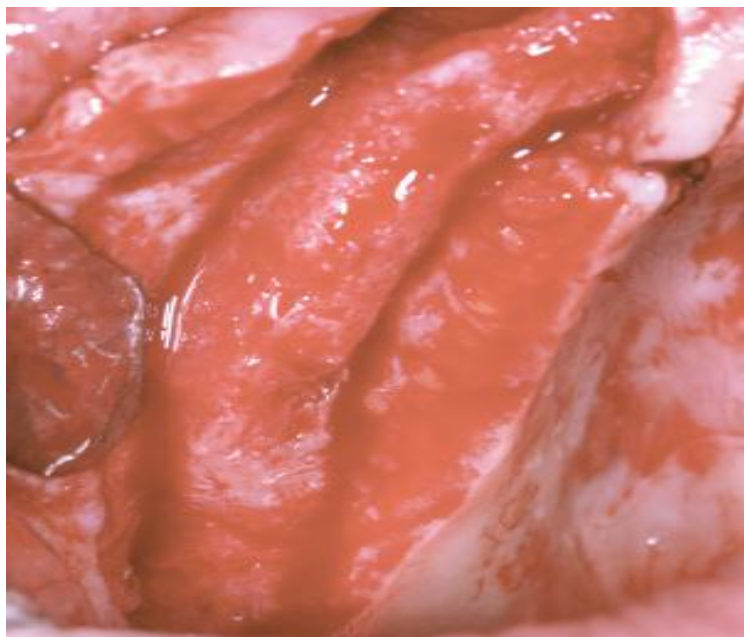
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**Pre-operative view of the resorbed edentulous ridge
after sinus graft incorporation.**



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Surgical exposure of the edentulous ridge shows an intact but narrow alveolar process.



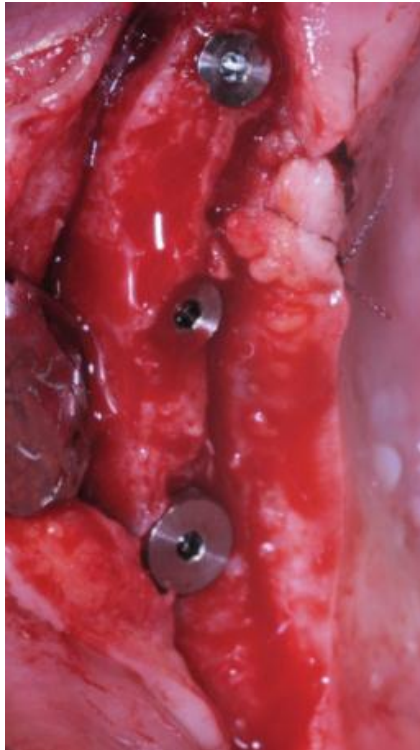
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Osteotomies were prepared according to the manufacturer's protocol and six implants were placed. Two HA-coated *Tapered Screw-Vent*® Dental Implants, 3.7 mm x 10 mm, were placed in the lateral incisor area, since it could be best accommodated by the amount of available native bone without bone grafting. In the remaining four sites, *Zimmer*® *Trabecular Metal*™ Dental Implants were placed and augmented with a composite graft of *Puros* Cortical Particulate Allograft (80%) and *Puros* Cancellous Particulate Allograft (20%) materials.



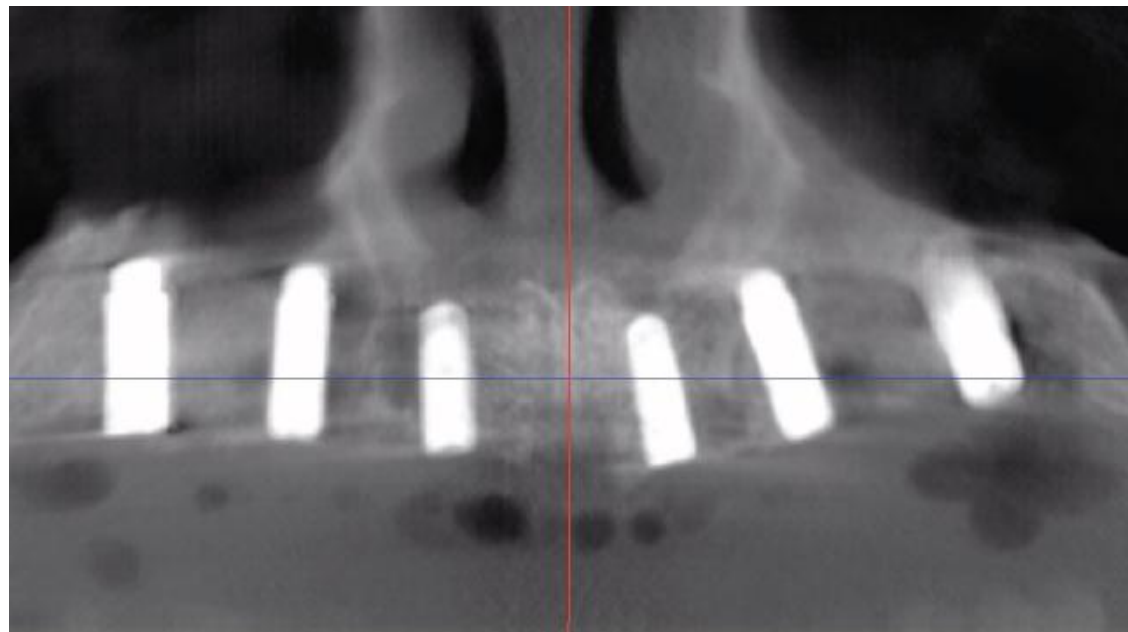
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After implant placement, the fixture mounts are removed and surgical cover screws are threaded into the implants. The soft tissues are mobilized for tension-free closure and sutured.



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Post-operative CT scan shows six implants placed into the augmented maxillary sinuses.