Bone Ring Technique and Simultaneous Implant Placement: A Case Report

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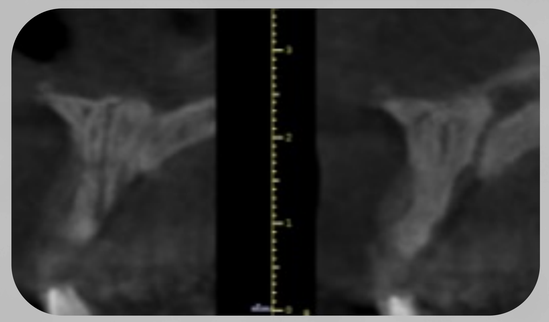
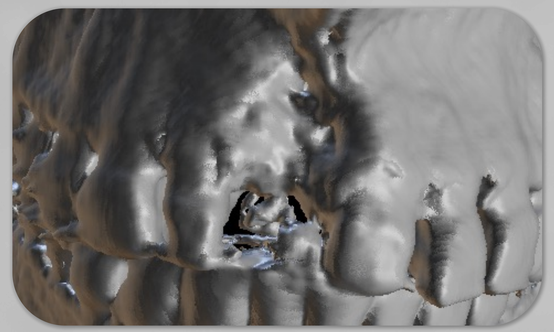
INTRODUCTION

The Bone Ring Technique (BRT) was introduced in 2006 by Giesenhagen. This technique offers a single-stage surgical approach for a ridge augmentation, which consists of taking an autogenous bone block graft with a ring shape configuration in order to make a vertical and horizontal bone augmentation that will achieve the stabilization of the dental implant in the bone defect.





METHODS

A clinical and radiographic examination was performed to establish the morphology of the bone defect.

Case 1: 43-year-old female patient with missing upper right central incisor. The bone morphology, showed a severe concavity with an unfavorable condition in terms of width and height. The treatment plan proposed was the insertion of an implant along with an autogenous ring shaped bone block and an implant-supported crown.

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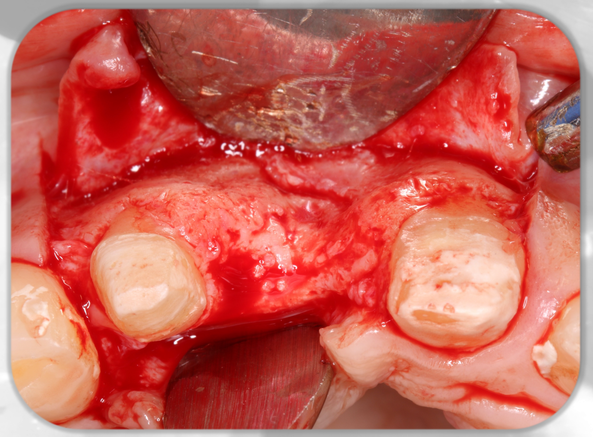
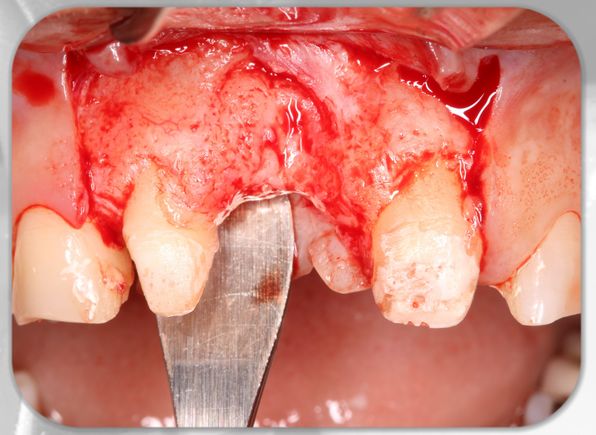
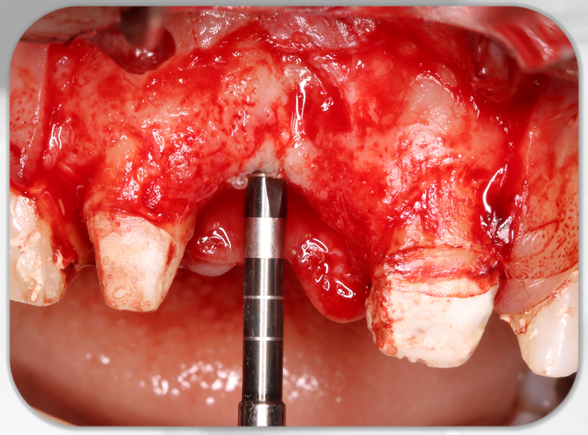
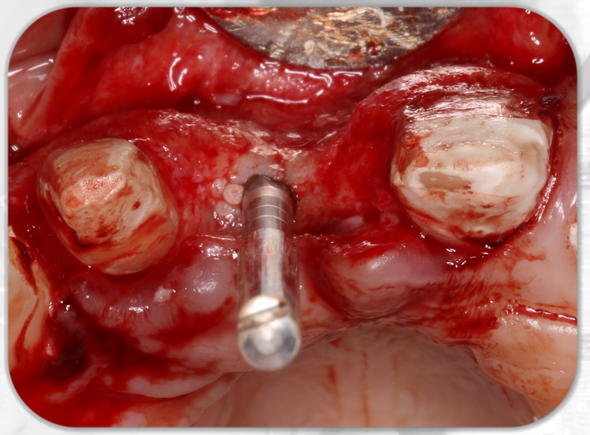
TECHNIQUE

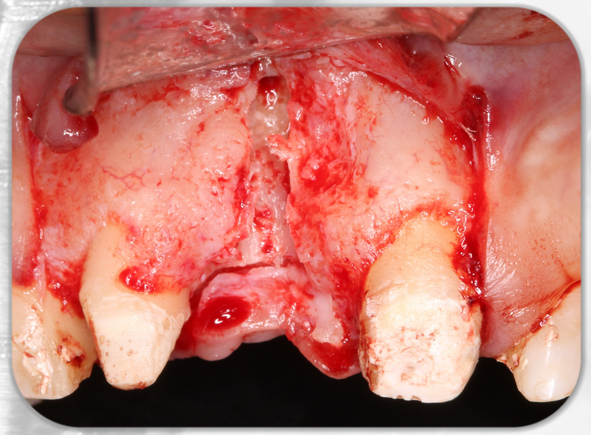
The surgical approach was through of a full-thickness flap, a drilling protocol was perfomed for a 3.5 x 13mm implant, an x-ray was taken to verify the position of the implant, the recipient site was prepared with a 7mm trephine.

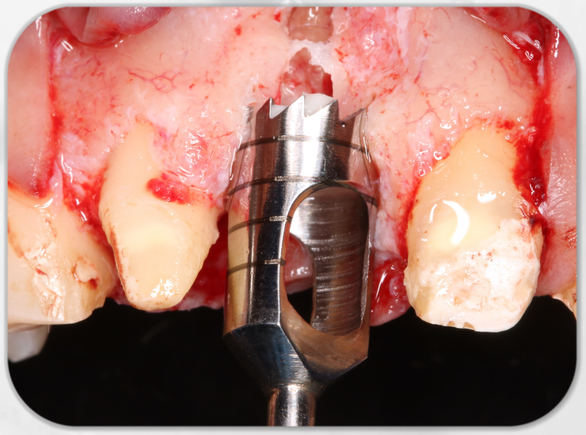












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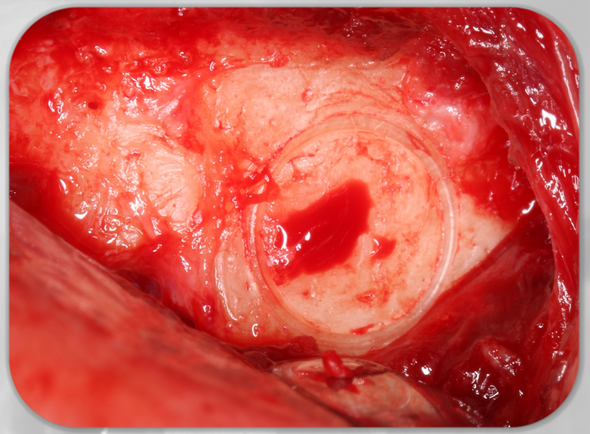
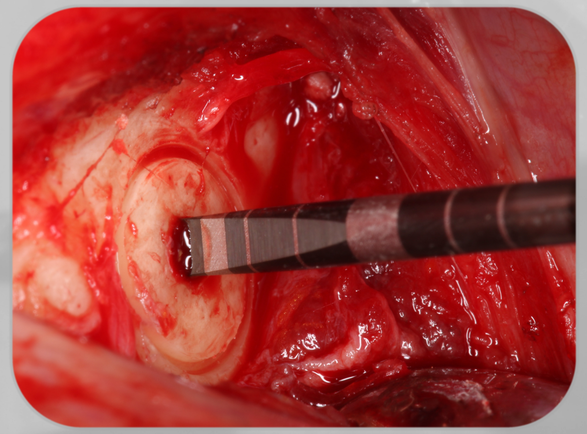
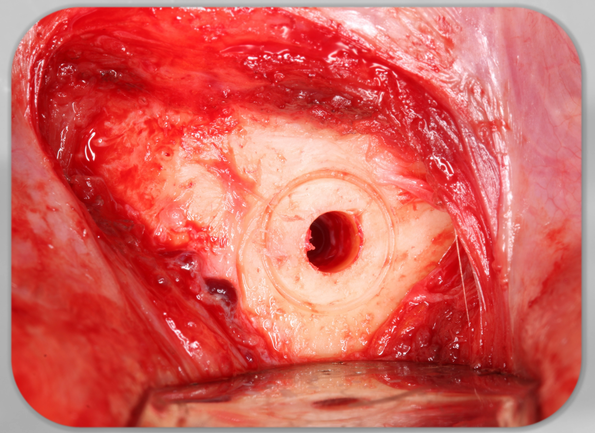
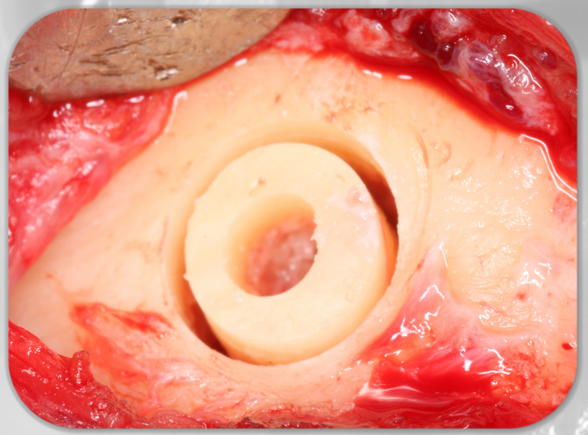
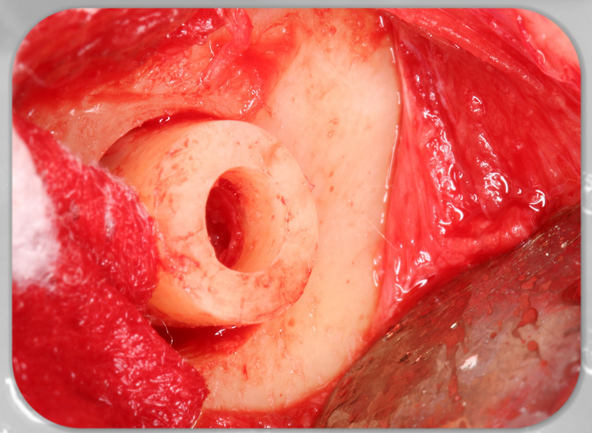
The donor area of the chin was prepared with a 7 mm trephine, first we made the design of the cut and after that we made the deepening with the trephine and the center shape of the graft was made with the drills of the implant system, to obtain the ring shape in the bone block.

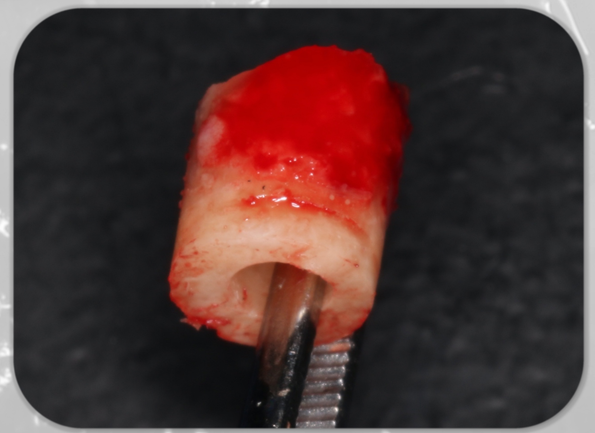












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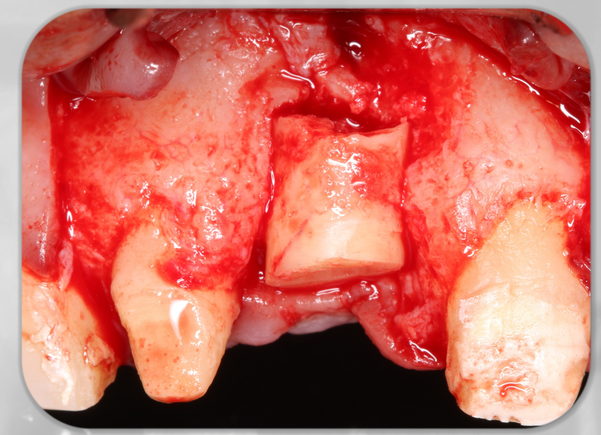
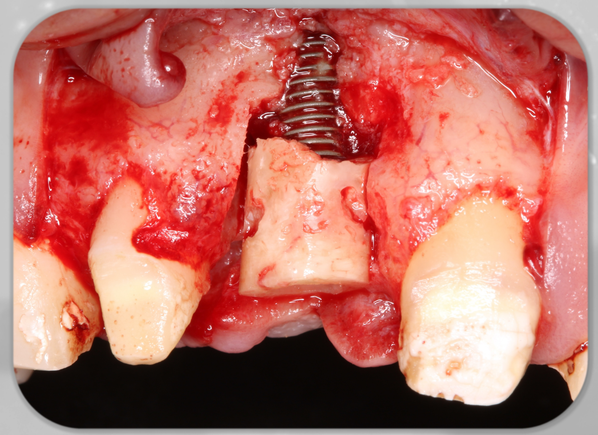
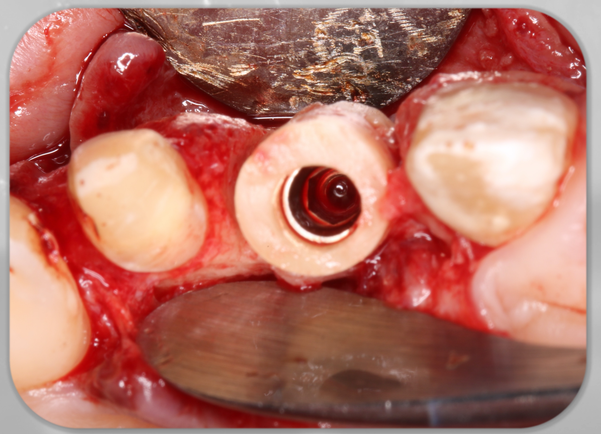
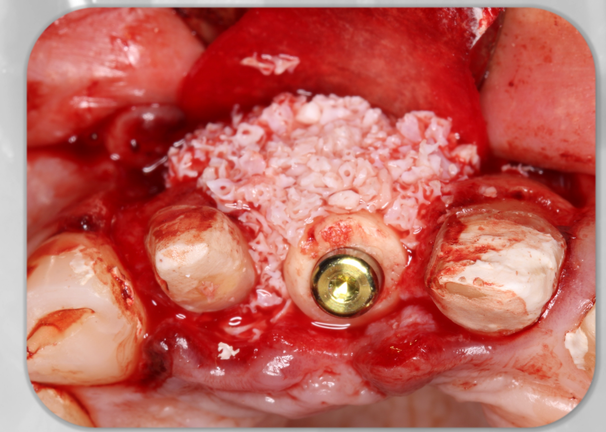
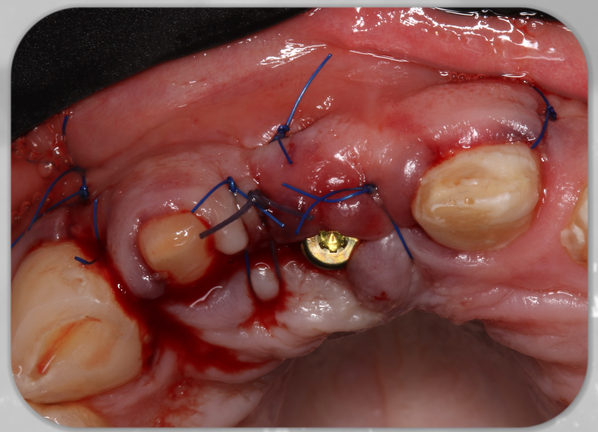
The bone ring was positioned in the recipient site, and the implant was placed with a torque of 35 N/cm, around the bone block, particulate xenograft was placed, and a resorbable collagen membrane was fixed. We did the advanced of the flap and sutured with a nylon of 5-0.











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RESULTS

Early healing of the bone graft following procedure and implant placement course uneventful , using of the surgical for vertical and horizontal ridge augmentation with the bone ring technique.

CONCLUSION

The use of this technique seems to be a predictable and it's a good alternative for ridge augmentation in severe bone defects with the simultaneous implant placement, reducing the treatment time and providing a versatility technique in the implant therapy.

BIBLIOGRAPHY