

# Bovine bone graft combined with autologous micro-graft using the "RIGENERA" technology and restoration with the iSy Implant System

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## Objectives, materials and methods:

Achieving predictable esthetic outcomes with implant-supported restorations is much more complex compared to restorations on natural teeth. Indeed, the loss of a single tooth in an area of high esthetic importance always involves a defect in both soft and hard tissues, with a recession. Process on the palatal-apical area, which may be the reason of a crown restoration longer than the natural, with lack of interdental papilla. Very often the predictability of the esthetic outcome is conditioned by an insufficient bone anatomy. We have faced the repair of bone loss by means of bovine bone biomaterials associated with the use of resorbable collagen membranes. The DBBM has been combined with autologous micro-graft obtained from the patient tissues, derived from mechanical selection by means of the "Rigenera" technology.



Fig1: Smile line and esthetic evaluation



Fig2: Agenesis of lateral incisors and wrong implant treatment



Fig3: Wrong surgical planning and consequent improper outcome.

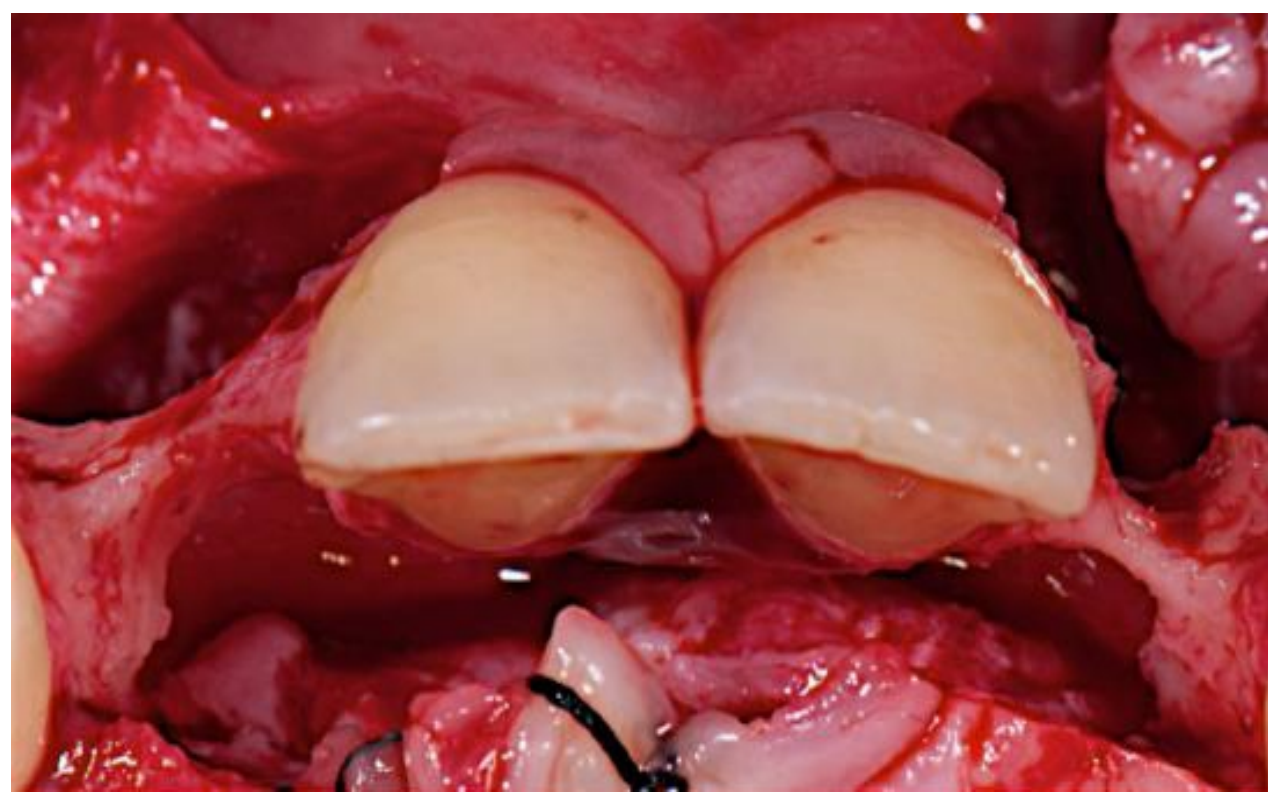


Fig4 & 5: Both fixtures are removed. In the area 1,2, inefficacy of the surgical

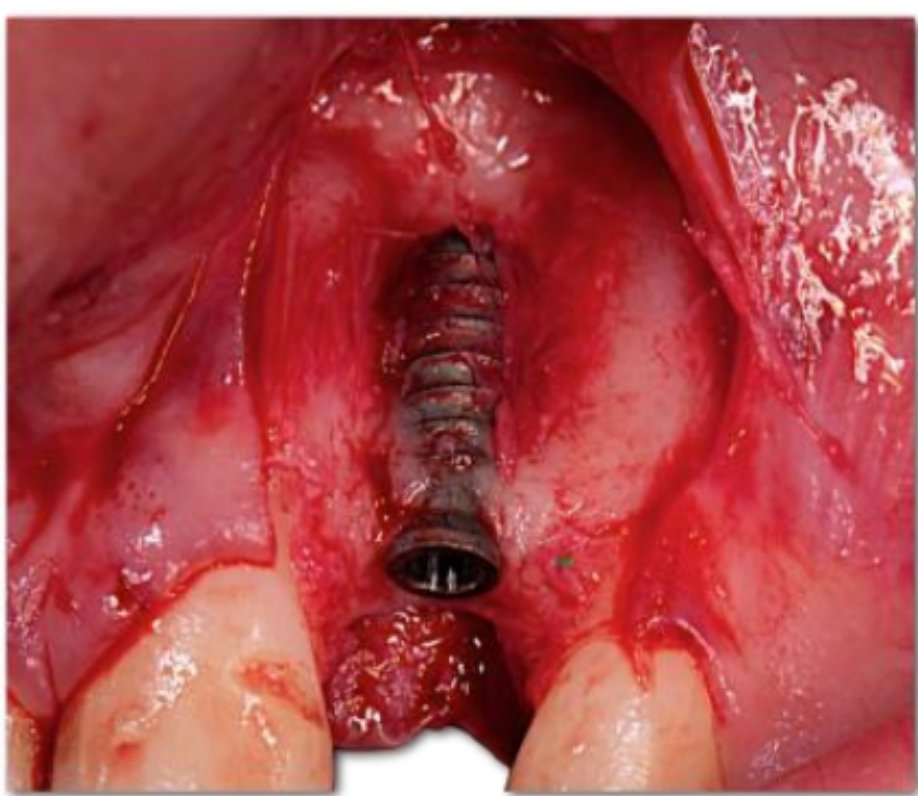


Fig 6: Bone defects repaired through DBBM block grafts combined with autologous micro-grafts, with the use of the RIGENERA Technology.

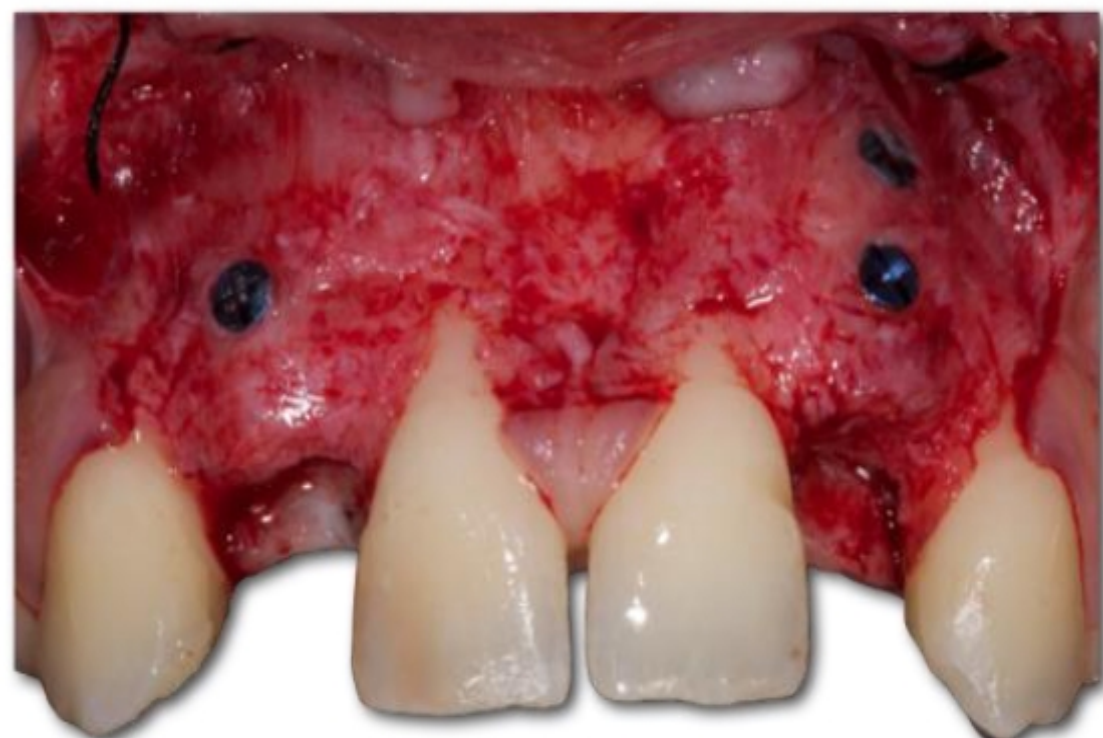


Fig. 7 & 8: Six months after bone graft.

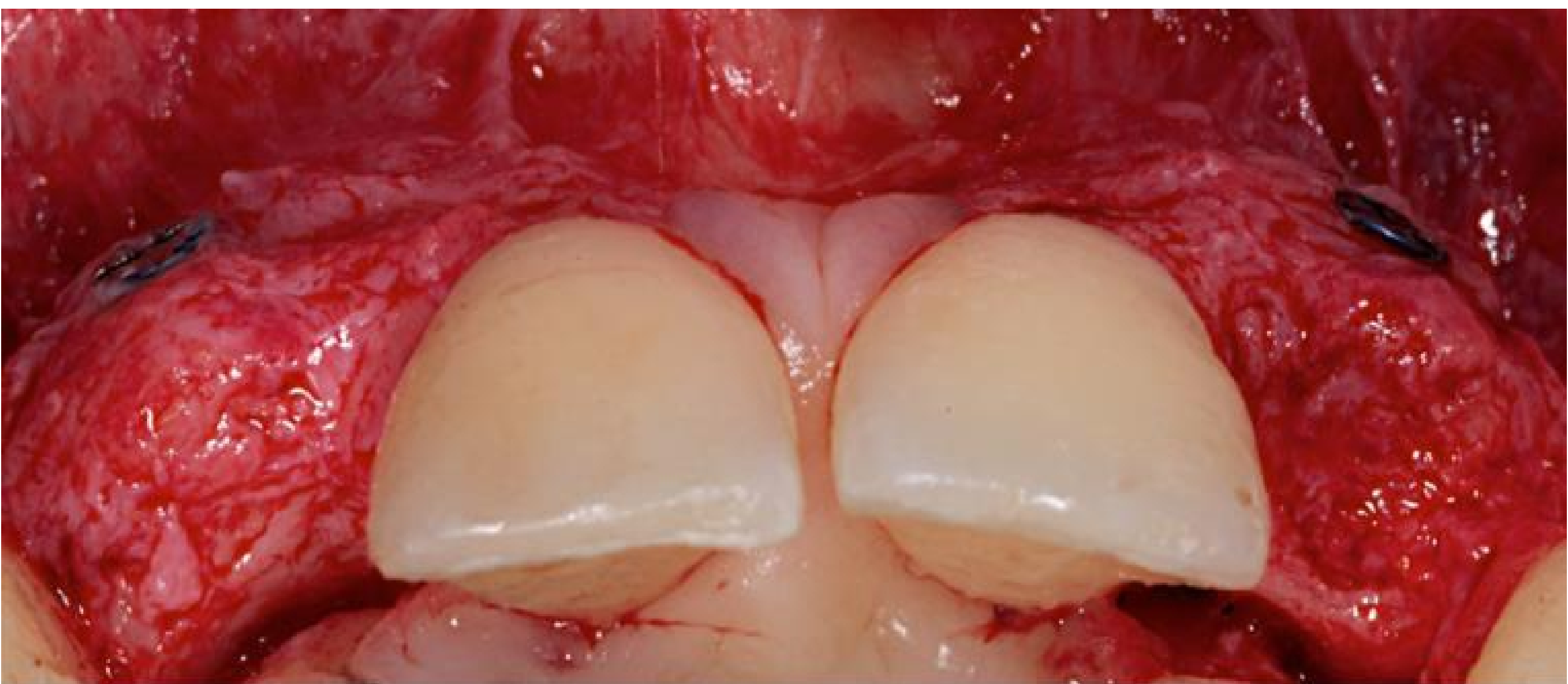


Fig. 9 & 10:

The remarkable increase in bone volume allows the positioning of the suitable fixtures.



Fig.11: Connective graft, positioning of fixtures with titan bases.

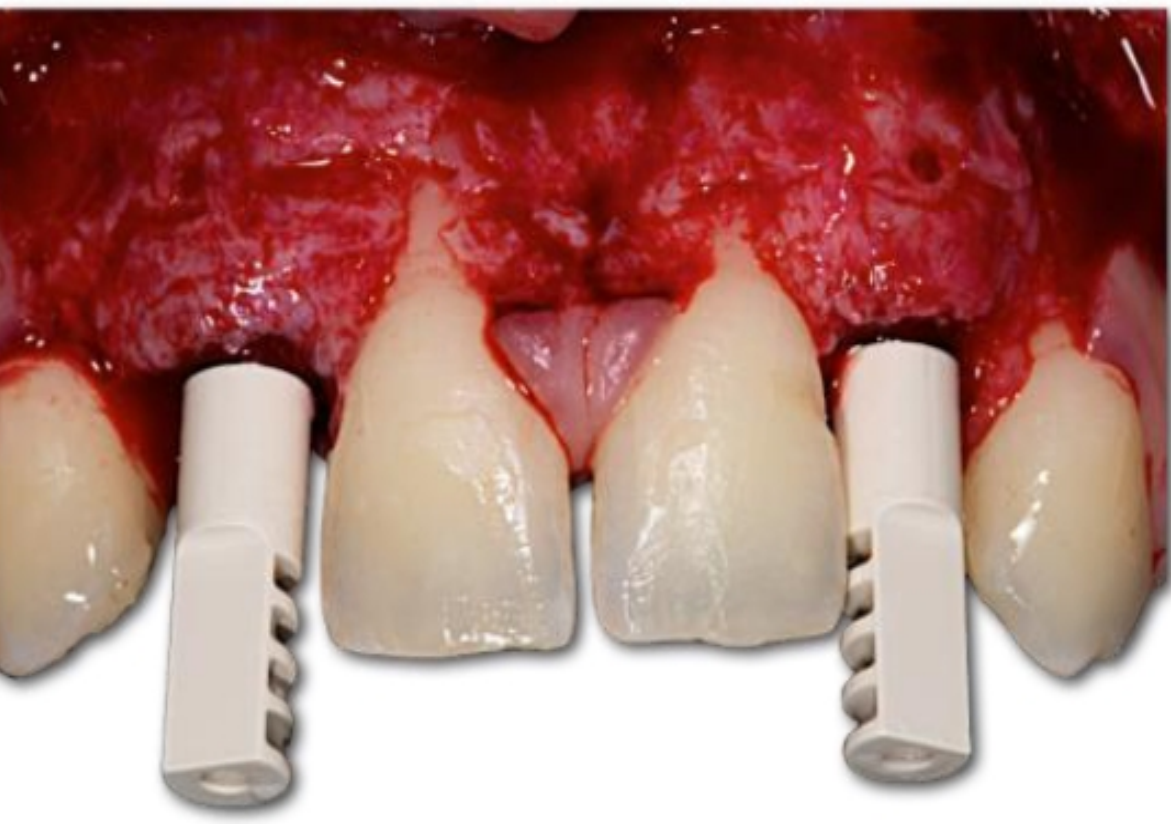
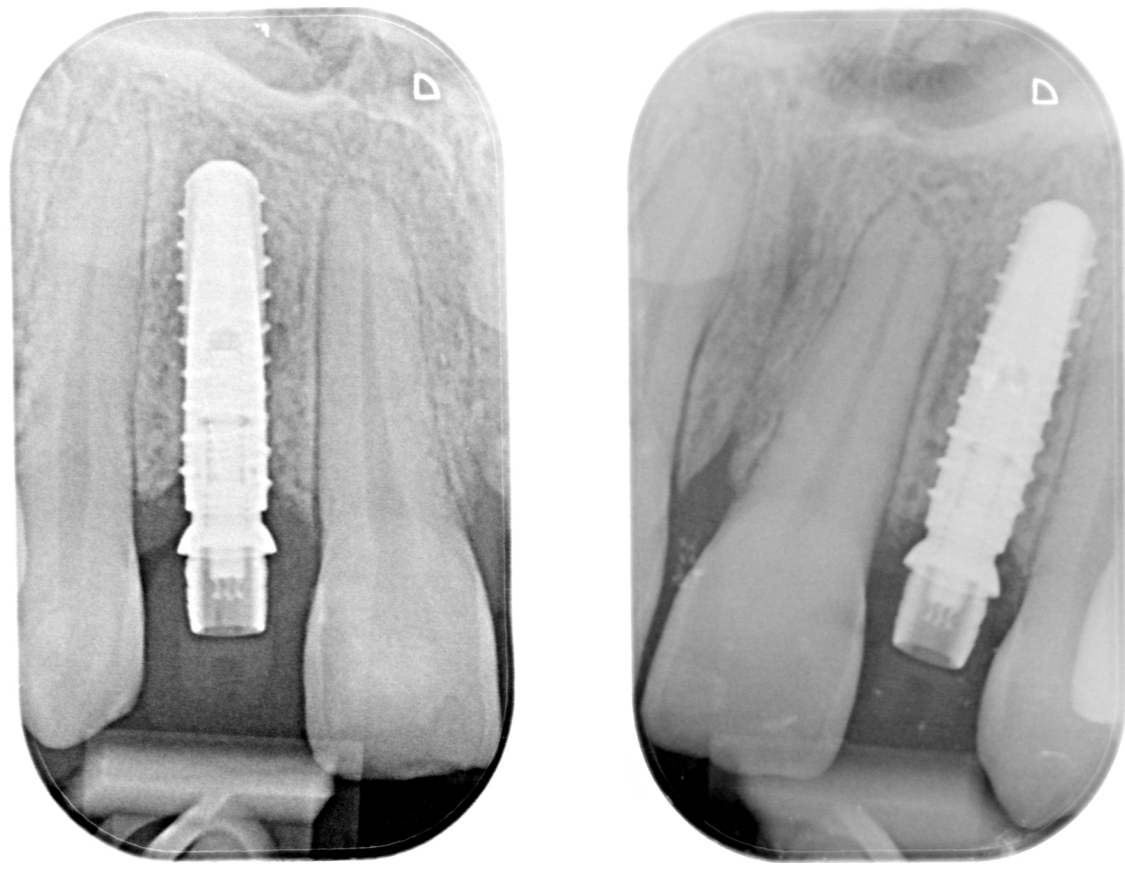


Fig.12: Try-in of the multifunctional caps mounted on the titan bases through conical connection



Fig.13: Healing cap on titan base



Fig. 14 Multifunctional caps ready for bonding on the temporary crowns.



Fig. 15: Temporary crowns inserted in the titan bases with conical connection, without use of cement.

**RESULTS:** The results are encouraging and seem at this early stage to open up new perspectives for the achievement of successful clinical esthetic outcomes, based on the stability of peri-implant tissues.

## References

Koury F, Antoun H, Missika P. Bone augmentation in oral implantology. Quintessence Publishing Co, Ltd 2007  
Buser D, et al. 20 years of Guided Bone Regeneration in Implant Dentistry. Quintessence Publishing, IL, 2011  
Giuliani A, D'Aquino R, et al. Three years after transplants in human mandibles, histological and in-line otomography revealed that stem cells regenerated a compact target that a spongy bone: biological and clinical implication. Stem Cells Translation Medicine 2013