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APPLICATION OF LESS INVASIVE TECHNIQUES IN ATROPHIC MAXILLA: ONE YEAR FOLLOW-UP CASE REPORT

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INTRODUCTION

Often in clinical practice the anatomical conditions do not allow the ideal implants insertion concerning the number, position and diameter in order to achieve good final prosthetic results. These critical situations can be solved by means of preprosthetic surgery, in example the sinus lift in vertical bone defects in the posterior upper jaw.
However, the analysis of the recent Literature leads to consider, as an alternative highly predictable, the use of short implants (1, 2, 4, 5, 6, 9) or cantilever rehabilitations (7, 8, 9, 10), always through a careful preliminary evaluation of the individual case.
We report a one year-follow up clinical case in which a distal bilateral edentulism in the upper jaw was solved using a minimally invasive flapless surgery computer guided by means of a short implant (lenght=6mm) in the right side and from the other side by means of a distal cantilever.

MATERIALS AND METHODS

During September 2009, a 51 years-old female patient came to our observation in healthy physical conditions. At the clinical and radiographic examinations the patient presented a distal bilateral edentulism of upper jaw (the residual teeth were present from 1.4 to 2.3 region) and reduced bone quantity in vertical dimension for the sinus presence. Starting from a CT Dentascan (Dicom format) and the plaster model realization the case was evaluated using Facilitate software (Materialise, Belgium).
After this planning 4 fixture were inserted: 4x6mm, 3.5x9mm, 4x9mm, 4x8mm (Astra Tech, Sweden) respectively in position 1.6, 1.5, 2.4 e 2.5.
Then a resin surgical guide was realized with dental support in order to insert dental implants using a computer guided flapless surgery .
After 60 days from the first surgery we began the prosthetic procedures in order to realize five metal-ceramic crowns with the distal cantilever in the region 2.6.

CONCLUSIONS

In spite of the difficult anatomical situation the use of a minimally invasive techniques was possible, reducing the surgery complexity and the patient discomfort.
The radiologic and clinical follow-up after one year demonstrated the excellent marginal bone level around the implants, the absence of prosthetic complications and the soft tissues good conditions.

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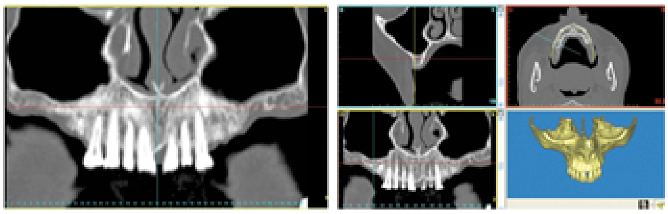
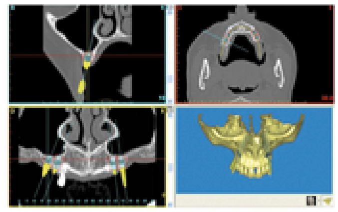
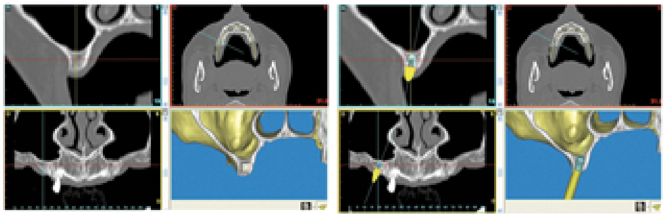


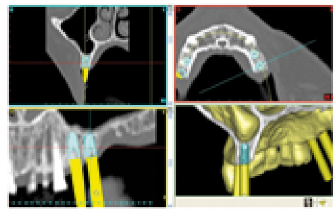
Initial situation



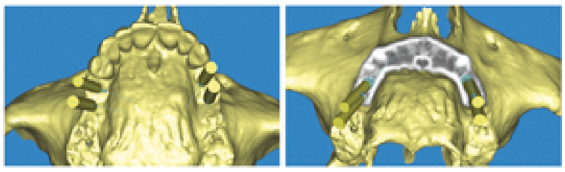
Planning with facilitate software: general view



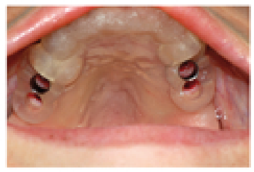
Planning with facilitate software in the region 1.6



Planning with facilitate software in the region 2.5



Planning with Facilitate software : implants axis 3D model



Placement of surgiguide

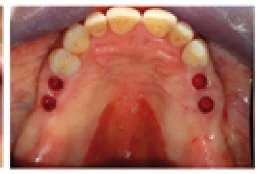


Image after the tissue punch

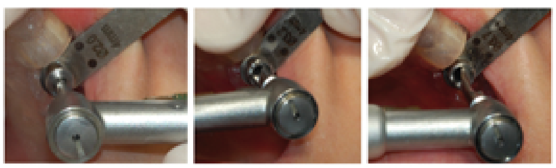
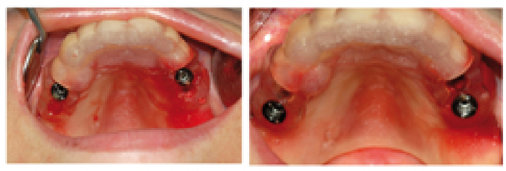


Image about drilling in the 2.4 region



Implant holder after the final placement

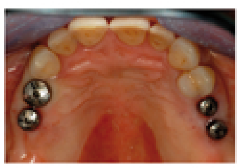
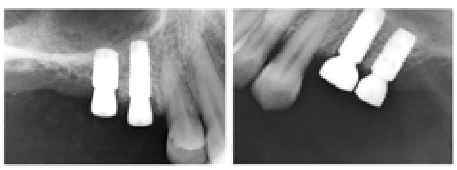
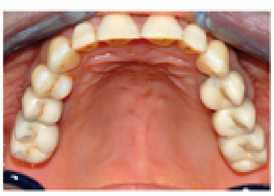


Image of tissues after the surgery

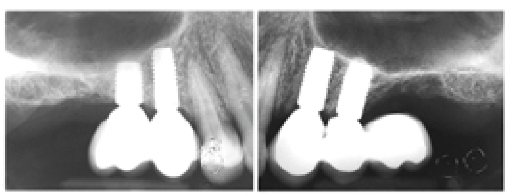


Baseline

Final rehabilitation at the frontal aspect



Final rehabilitation at the occlusal aspect



1year follow-up

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