Immediate implant placement with CBCT surgical planning: A case report

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Introduction:

Dental implant placement provides a predictable and safe treatment option for oral rehabilitation. A successful treatment must be based on the final prosthesis, it is recommended the use of a CBCT designed surgical guide and mockup. These elements minimize the risks in terms of the ideal position and the potential damage to anatomical structures, in addition the immediate implant placement reduces the number of interventions thus rehabilitation time, also help us to preserve and maintain the soft tissue.

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Case Report:

A 49-year-old female patient with periodontal diagnosis of gingivitis induced by dental plaque.

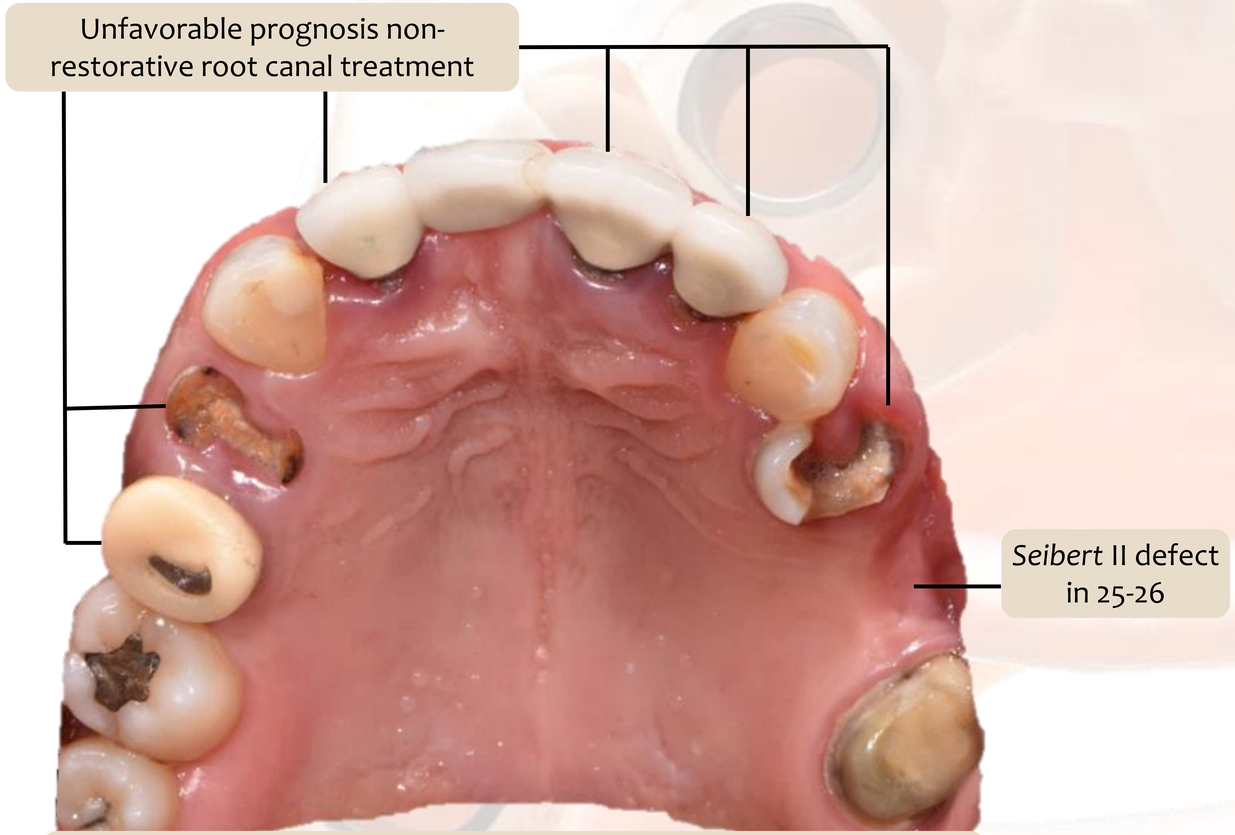

Fig. 1. Occlusal view with the initial conditions

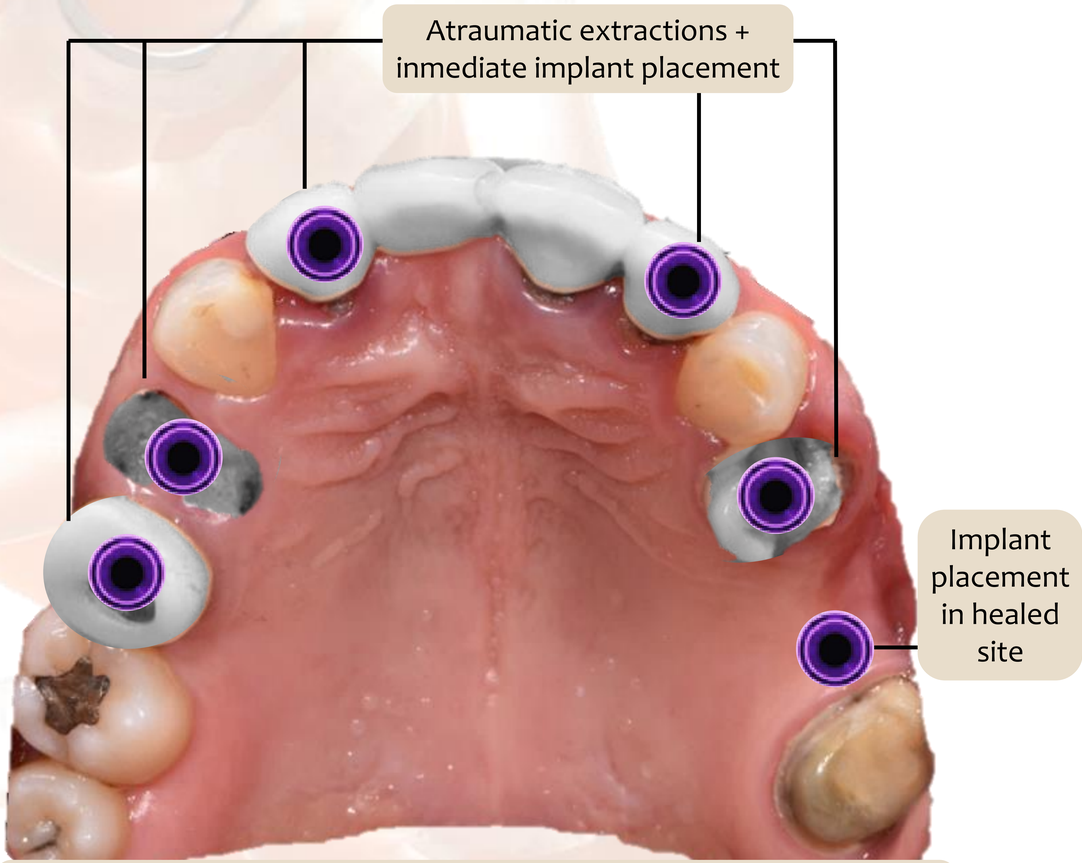

Fig. 2. Treatment plan

Treatment Secuence:

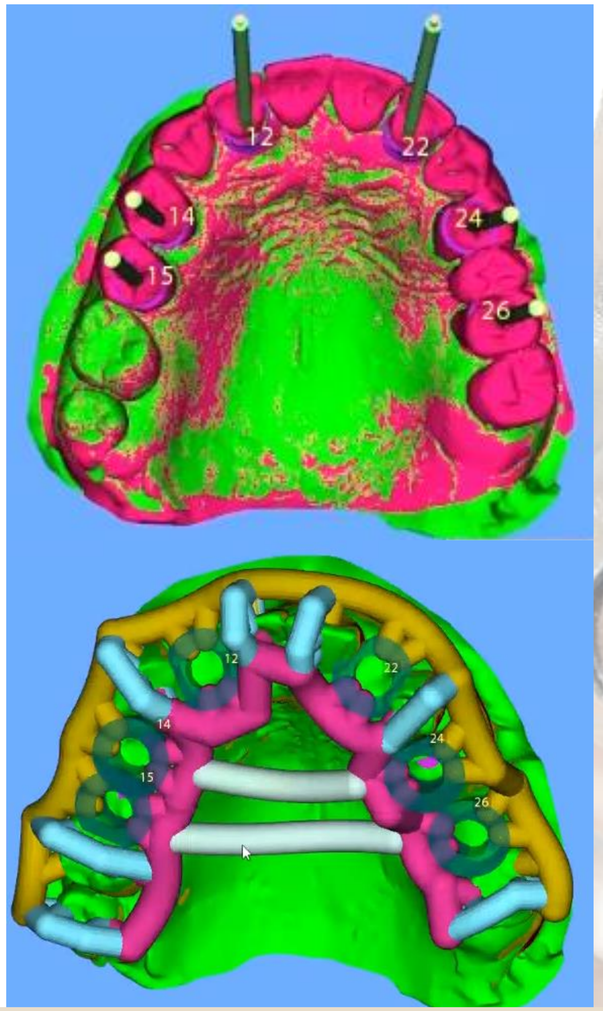

Fig. 3. Diagnostic Wax up and the guide design

CBCT Surgical Planning:

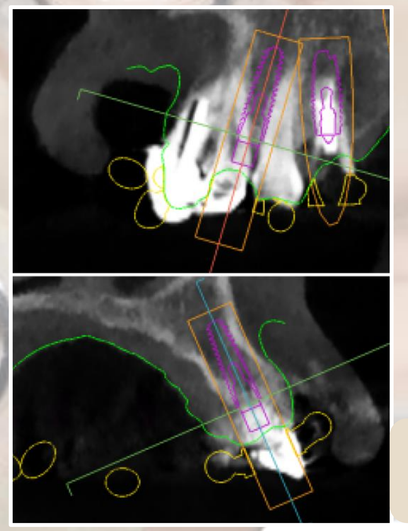

Fig. 4. Implant 12 planning position

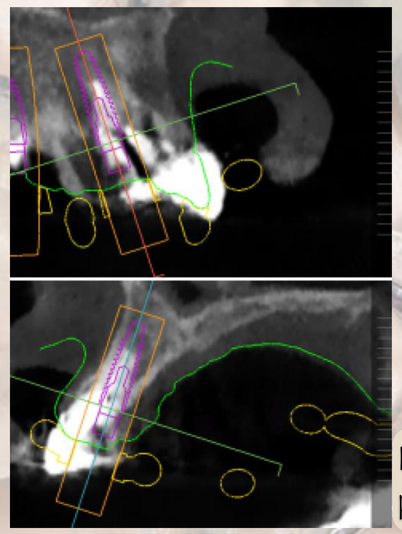

Fig. 5. Implant 22 planning position

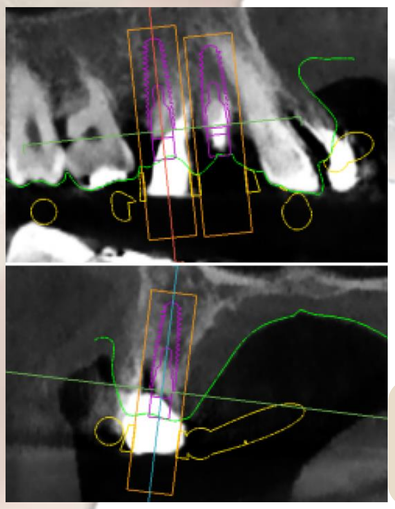

Fig. 6. Implant 15 y 14 planning position

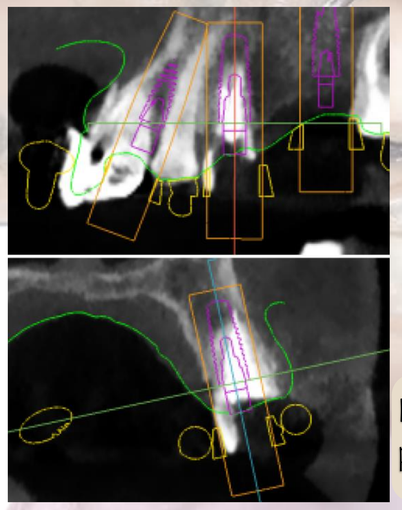

Fig. 7. Implant 24 y 26 planning position

Treatment Secuence: Surgical Phase

Fig. 8. Inmediate post extraction

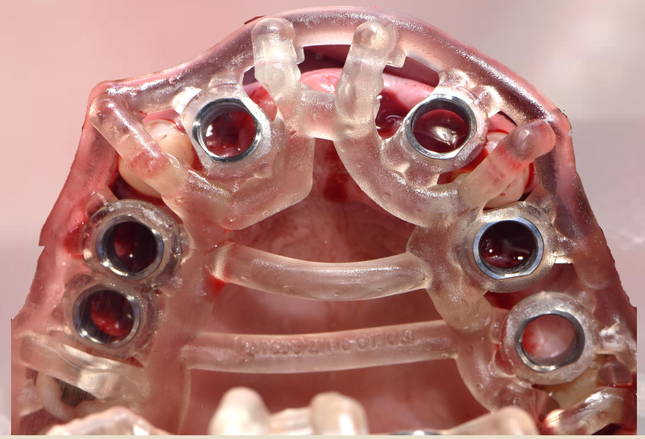

Fig.9. Guide try in

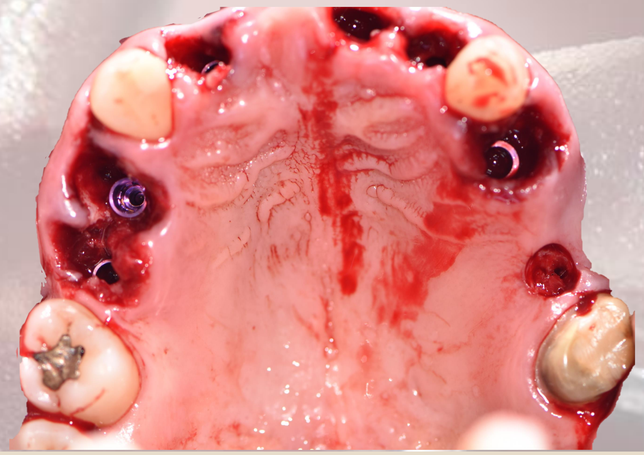

Fig. 10. 6 implant placed

Fig. 11. Implants with healings screws

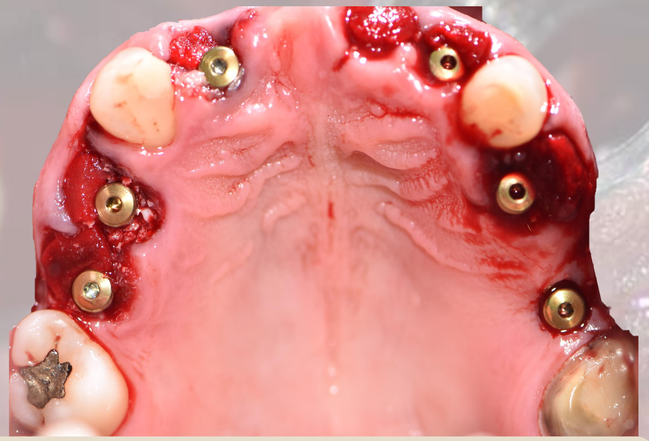

Fig. 12. Gap filled with particulate bovine-derived xenograft and a collagen matrix

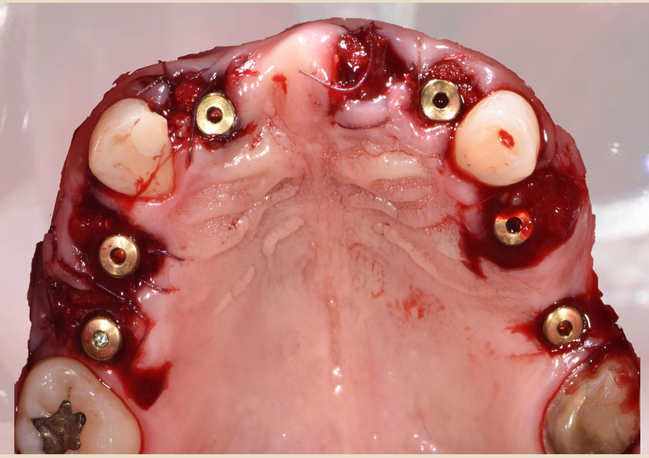

Fig. 13. Wound closure was done with 5-0 polyglycolic acid

Results:

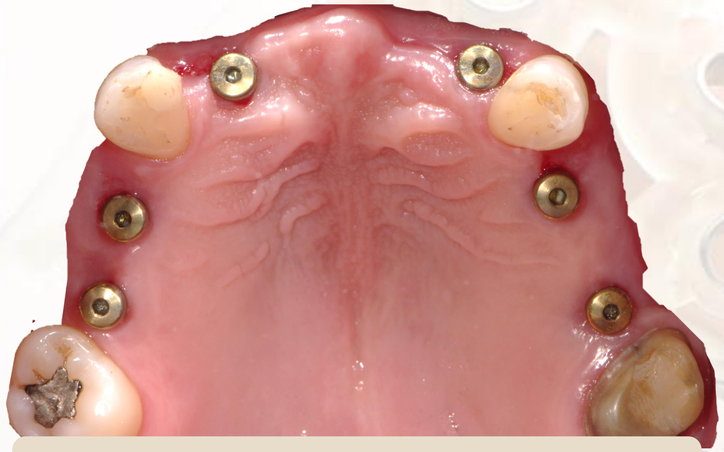

Fig. 14. Post operative follow up

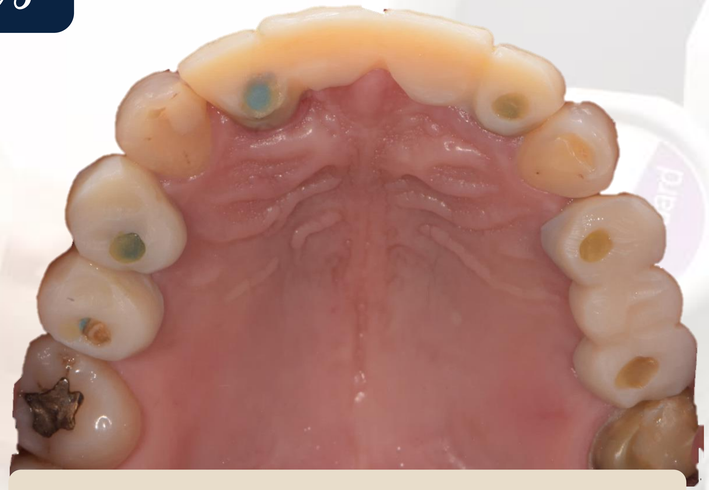

Fig. 15. Provisionalization

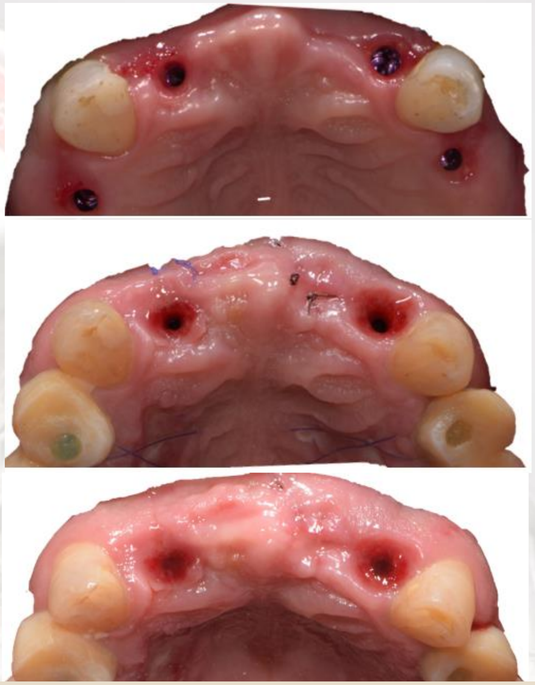

Fig. 16. Soft tissue augmentation with connective tissue graft

Conclusions:

- ✓ The immediate implant placement helps to optimize rehabilitation time since it reduces the number of surgical interventions.
- ✓ The use of a surgical guide increases success rates by reproducing the ideal position based on the previously planned restoration.

References: