Synergy in Implantology: Soft Tissue Augmentation and Prefabricated Crown for Enhanced Aesthetic Outcome in a Healed Maxillary Canine Site

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Introduction

Achieving optimal esthetics in anterior implant cases is particularly challenging in patients with high smile lines and soft tissue deficiencies. This case report presents a new approach to guided implant placement and immediate provisionalization in a highly esthetic zone.

Case Presentation

A 30-year-old female patient presented with a missing maxillary right canine (#11) in a healed site with buccal soft tissue deficiency. The patient exhibited a high smile line and had significant esthetic concerns.

Digital Planning & Surgical Approach

Comprehensive digital planning was conducted using **intraoral scanning (IOS), CBCT imaging, and Implant Software**. To challenge Digital implantolgy and static computer-guided surgery, we employed a **pre-fabricated implant crown before implant placement** . This provisional will be inserted on the day of the surgery

By integrating **CAD software with implant software**, we achieved a seamless connection between form and function,
A synergic approach allowed us to be esthetic functional and biologic .

A **fully guided surgical protocol** was utilized to place a **3.75mm x 12mm Straumann BLX implant** with precise control over both **vertical and rotational positioning**. This precision allowed for the immediate placement of a **prefabricated provisional restoration** without requiring any modifications or adjustments.

Soft Tissue Augmentation & Healing

To address the buccal soft tissue deficiency, **soft tissue augmentation** was performed at the time of surgery to improve tissue volume and supported by the prefabricated provisional to achieve best possible peri-implant mucosa.

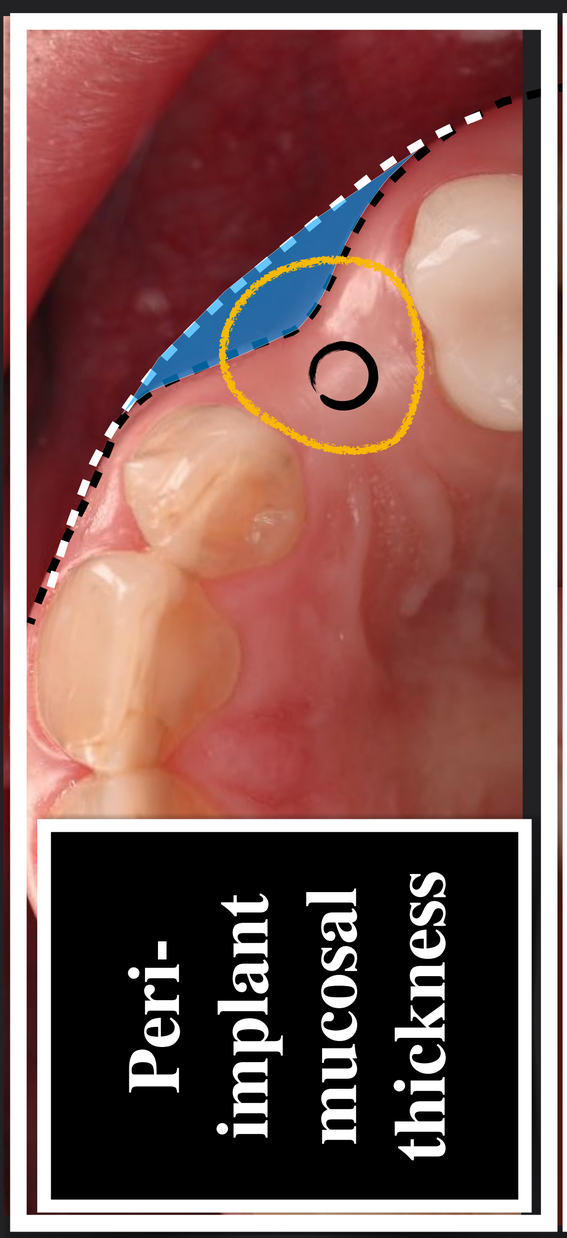
Final Restoration & Outcome

Three months post-surgery, a **facially layered zirconia screw-retained crown** was delivered. The final outcome demonstrated:

- Improved **papillary height and**
- Enhanced **soft tissue quantity and quality**
- A **natural , functional and esthetic restoration and emergence profile**

Conclusion:

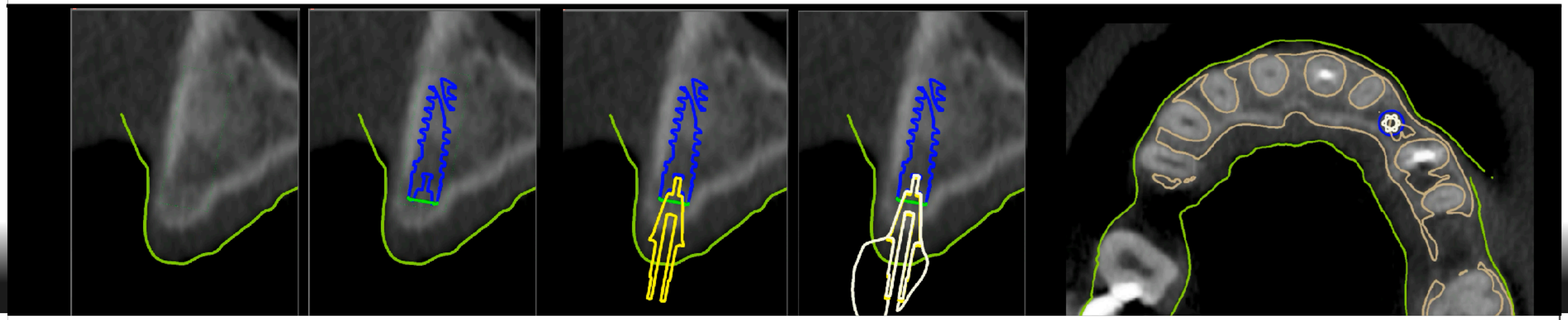
This case highlights the **synergy between surgical, prosthetic, and esthetic aspects** of implant therapy. By integrating **prosthetic-driven planning with guided implant placement**, we achieved precise implant positioning, allowing for immediate prosthetic placement without adjustments. The **synergy of implant positioning, soft tissue augmentation, and emergence profile** resulted in a natural and biologically stable outcome. This approach demonstrates how a synergistic workflow enhances **predictability, efficiency, and esthetic excellence** in anterior implant rehabilitation.



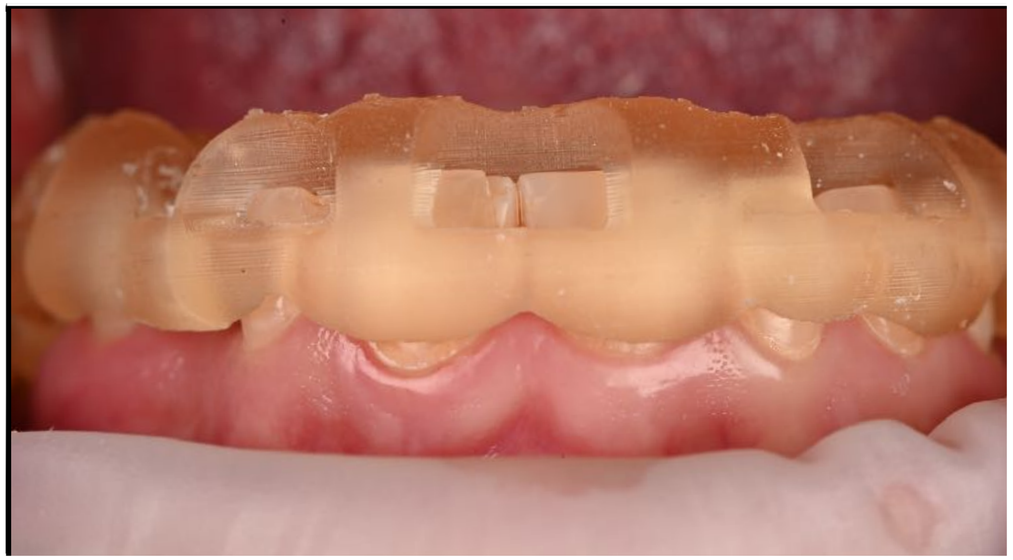
High Smile Line **Patient** Expectation **Anterior** Implant **Aesthetic** Deman

Baseline Wax UP Surgical Guide

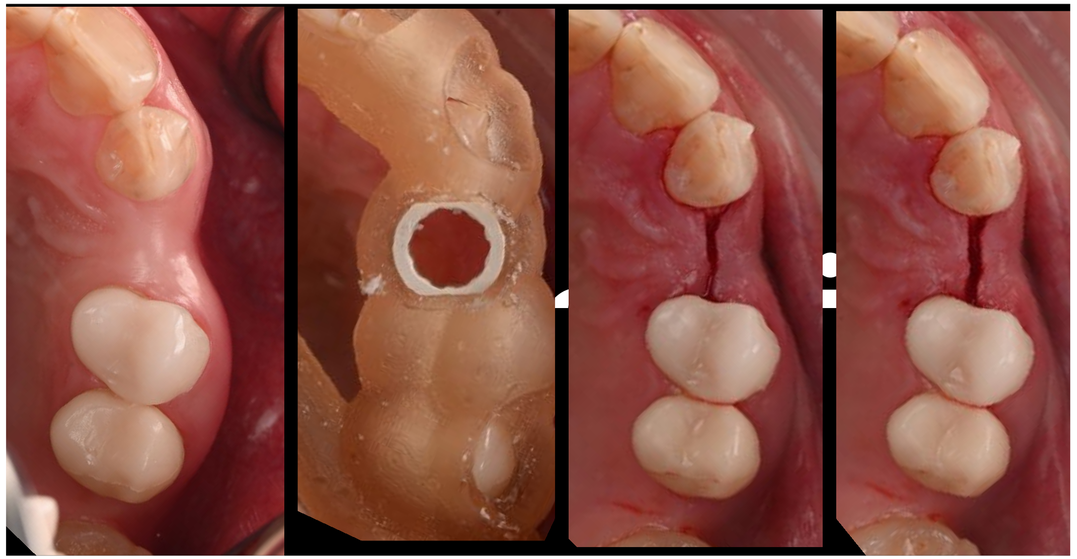
Proper 3-D Implant Position



Fully *Seated*

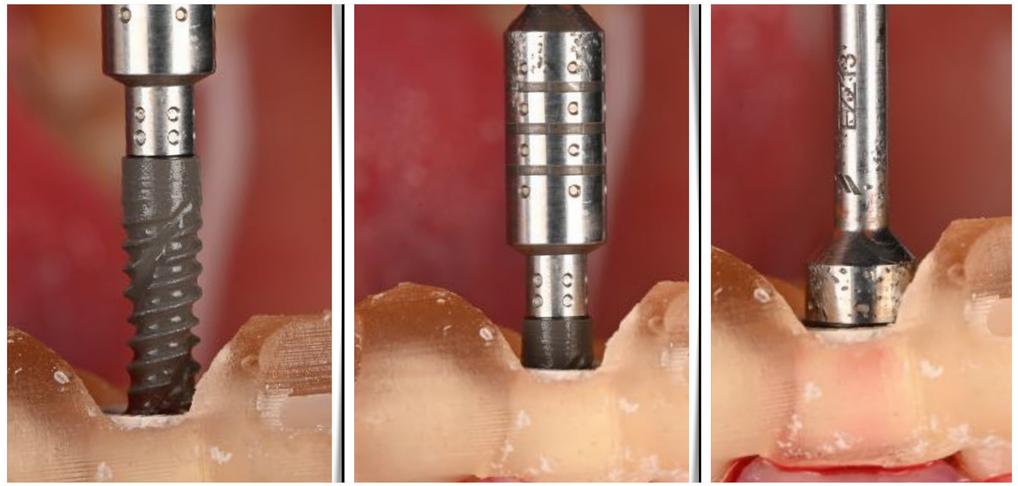


MidCrestal *Incision*



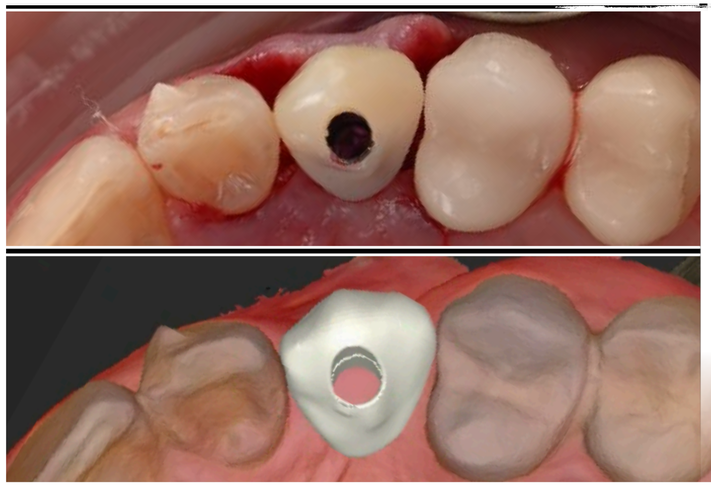
Prefab *Provisional*

Implant *Control*

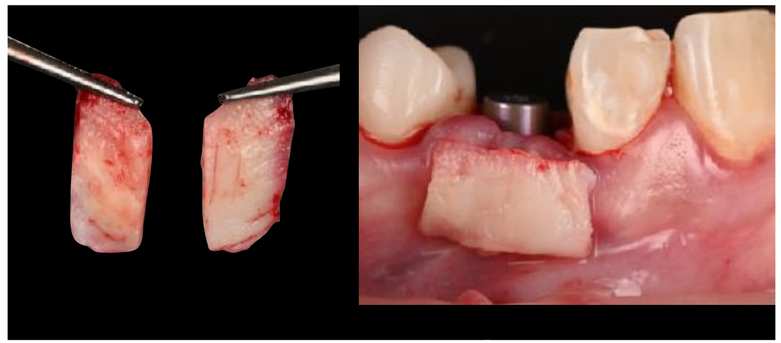


Prefab *Insertion*

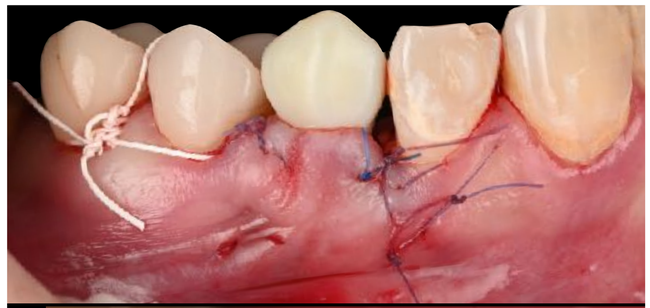
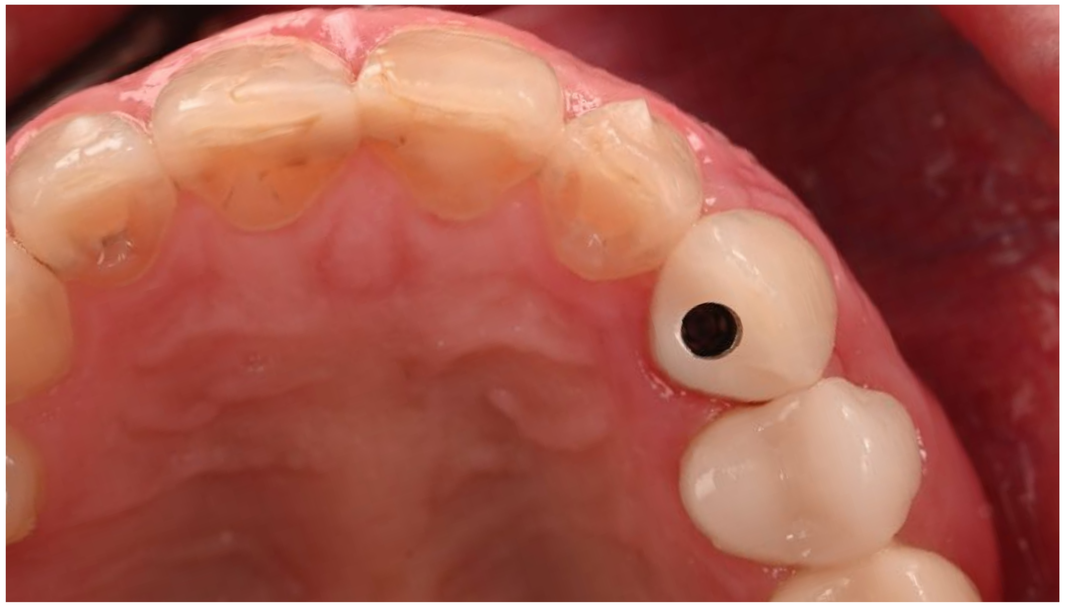
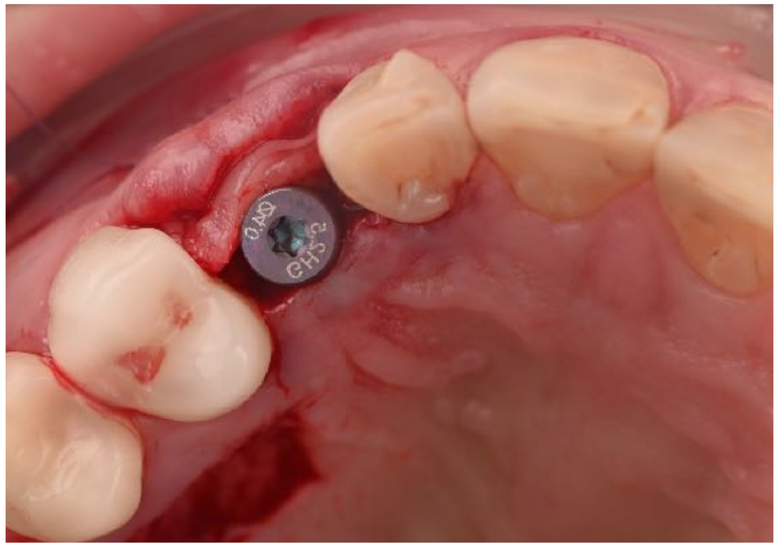
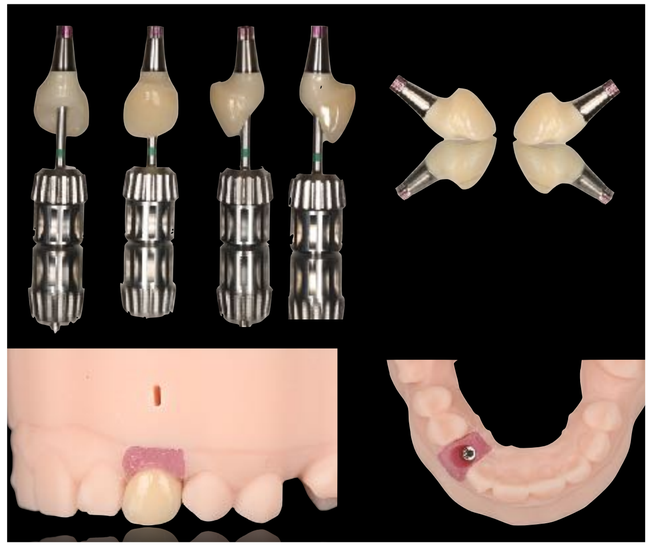
Virtual Vs *execution*



Connective Tissue



New Papilla Hight



Final Results