Improving Peri-Implant Soft Tissue Architecture by Customized Temporary Abutment in the Esthetic Area: a Case Report.

Paulina Cervantes[1], Rodrigo Neria[2], Patricia Vargas[3].

Department of Periodontics and Implantology, National Autonomous University of Mexico.

Introduction:

Implant placement in the esthetic area is a clinical challenge. The transition between the implant-supported restoration and the soft tissues must be as natural as possible.

Peri-implant soft tissue conditioning with provisional ovate pontics is an important step when it comes to anterior regions.

Allowing to improve the emergence profile and to provide symmetric contours of the gingival margin prior the final restoration and resulting in high patient satisfaction.

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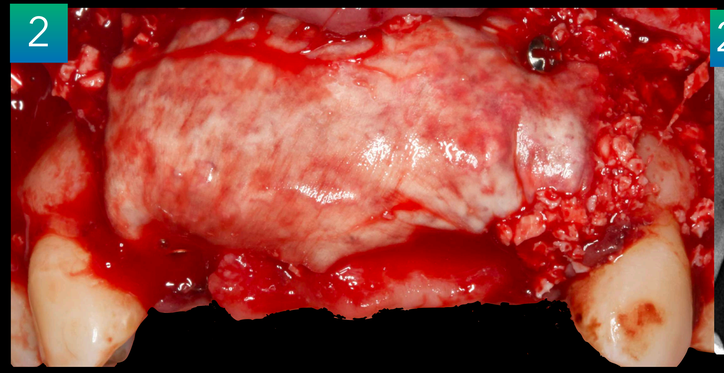
46-year old female patient with a chief complaint of tooth mobility and a deficient anterior prosthetic restoration.

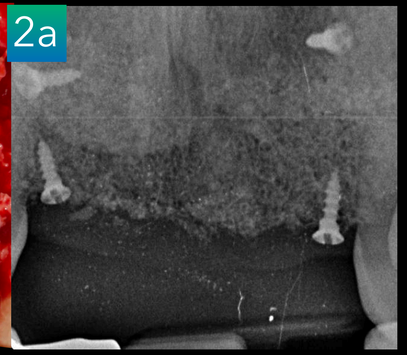
An evaluation revealed the absence of one central incisor and the remaining incisors with poor prognosis.

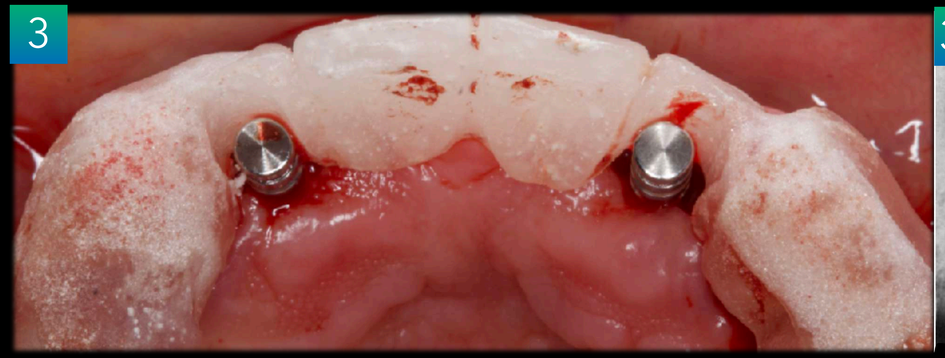
The purpose of this case is to show the soft tissue conditioning of multiple missing neighboring anterior teeth prior the esthetic restoration with an implant-supported fixed dental prostheses, sculpting the correct emergence profile with ovate pontics after bone regeneration in the anterior maxilla.

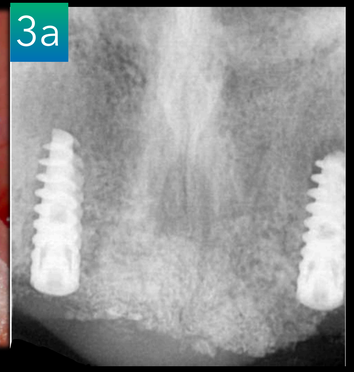
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Material and Methods:

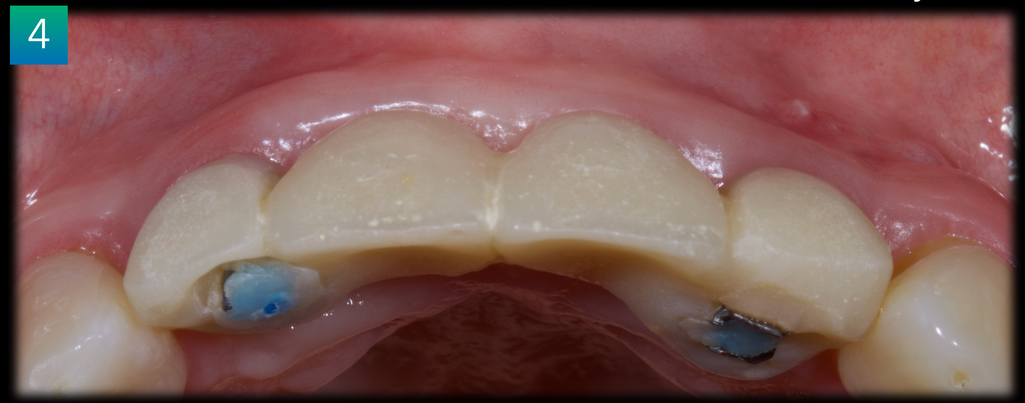








After tooth extraction, guided bone regeneration was performed. Six months later two implants were placed in the lateral incisors position, and delayed loading protocol was planned.



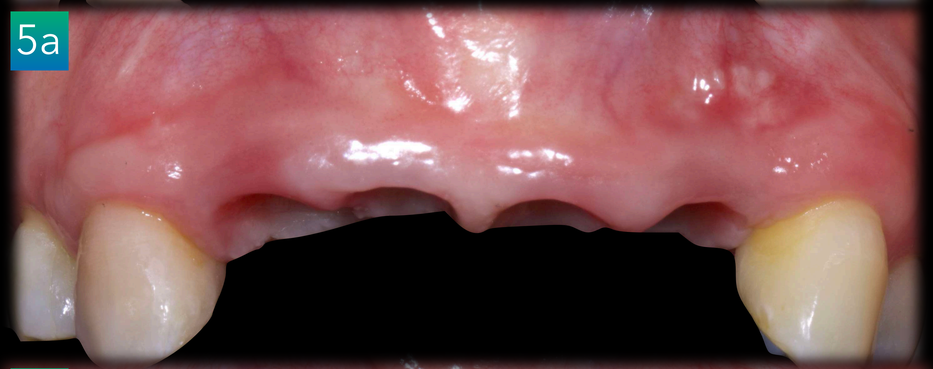




A metal temporary restoration was retained and modified each 3 weeks for 6 months with ovate pontics highly polished, applying light pressure to the underlying mucosa in an attempt to improve the peri-implant emergence profile prior to the final fixed partial denture stage.

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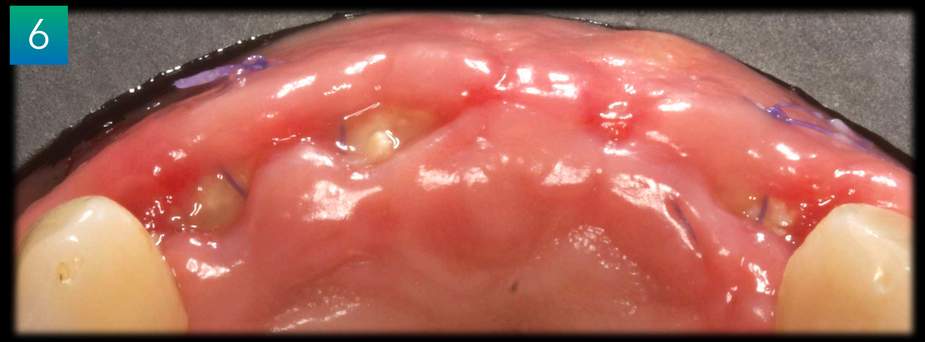


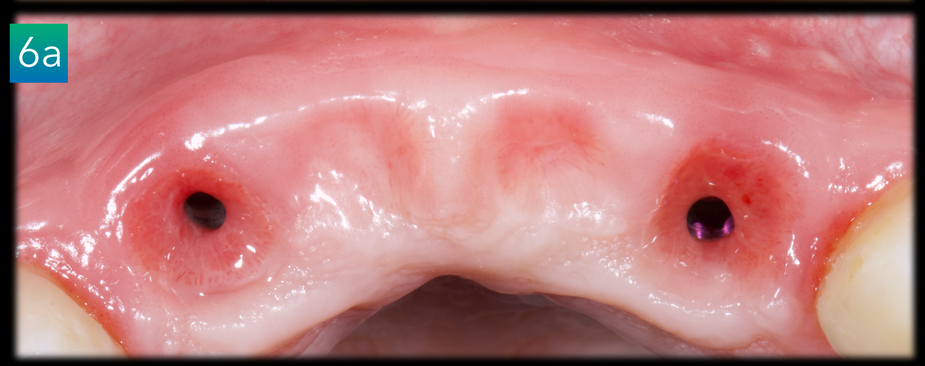


In cases of bone regeneration with delayed placement of dental implants, the bone crest will present a flat architecture.

After 3 month follow-up. Some coronal migration of the gingival margin can be noted.

After 6 months of soft tissue conditioning, an harmonic gingival profile and papillae aspect were created. The labial alveolar profile was conserved.





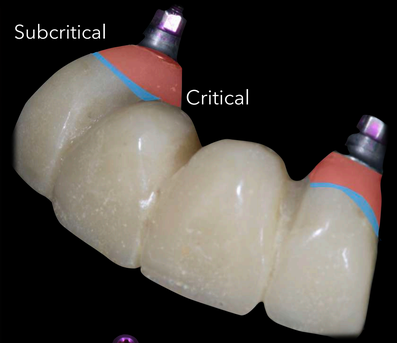


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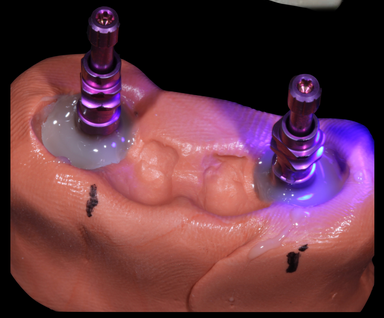
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Esthetic - biological peri-implant emergence profile.



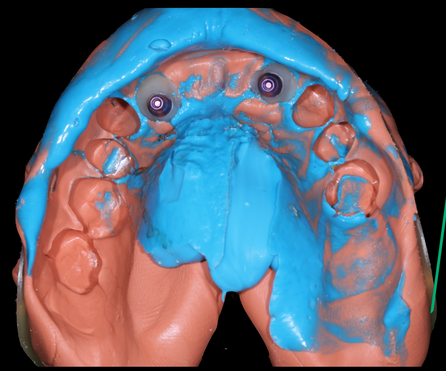
Divergent contour to establish an emergence profile similar to a natural tooth.



Soft tissue contours were recorded.



Implant position was captured.



Open tray impression technique.

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Criteria of Esthetic Index.

PES	
1. Mesial Papilla	2
2. Distal Papilla	2
3. Curvature or Facial Mucosa	2
4. Level of Facial Mucosa	**2**
5. Root Convexity / Soft Tissue Color and Texture	**1, 2, 1**
Score:	**12**



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Results: A significant Pink Esthetic Score improvement was observed between the time after bone regeneration and after 6 moths of soft tissue conditioning. With high satisfaction expressed by the patient.

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Soft tissue architecture after GBR.

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10a



Final restoration after 6 months of soft tissue conditioning.

Conclusions:

This case shows that peri-implant soft tissue conditioning via customized temporary abutment is a viable treatment procedure for anterior partial edentulism with good clinical outcomes, creating an esthetic emergence profile at six months follow up.
Implants placed in the lateral incisor position with two ovate pontics in the central position may represent a treatment option that meets both functional and esthetic requirements.

References: