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Immediate placement and provisionalization of implants in the aesthetic zone with or without a connective tissue graft: A 1-year randomized controlled trial and volumetric study

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Abstract
Objective: To volumetrically compare peri-implant mid-facial soft tissue changes in immediately placed and provisionalized implants in the aesthetic zone, with or without a connective tissue graft.
Material and methods: Sixty patients were included. All implants were placed immediately after extraction. After randomization, in one group, a connective tissue graft (test group, n = 30) was inserted at the buccal aspect of the implant. The other group (control group, n = 30) received no connective tissue graft. Clinical parameters, digital photographs and conventional impressions were obtained before extraction (T₀) and at 12 months following definitive crown placement (T₁₂). The casts were digitized by a laboratory scanner, and a volumetric analysis was performed between T₀ and T₁₂.
Results: Twenty-five patients in each group were available for analysis at T₁₂. Volumetric change, transformed to a mean (±SD) change in thickness, was -0.68 ± 0.59 mm (test) and -0.49 ± 0.54 mm (control) with a non-significant difference between groups (p = .189). The mid-facial mucosa level was significantly different between both groups (p = .014), with a mean (±SD) change of +0.20 ± 0.70 mm (test) and -0.48 ± 1.13 mm (control). The Pink Esthetic Score was similar between both groups.
Conclusions: The use of a CTG in immediately placed and provisionalized implants in the aesthetic zone did not result in less mucosal volume loss after 12 months, leading to the assumption that a CTG cannot fully compensate for the underlying facial bone loss, although a significantly more coronally located mid-facial mucosa level was found when a CTG was performed.

KEYWORDS
aesthetic zone, immediate placement, soft tissue graft, volumetric changes

1 | INTRODUCTION
Different clinical protocols exist to replace a falling tooth in the aesthetic zone by implant therapy (Hämmerle, Chen, & Wilson, 2004). In type 1, implants may be placed immediately after extraction of the falling tooth and be provisionalized within 24 hr. Apart from a reduced treatment time, immediate implant placement and provisionalization (IIPP) is considered a predictable treatment option in

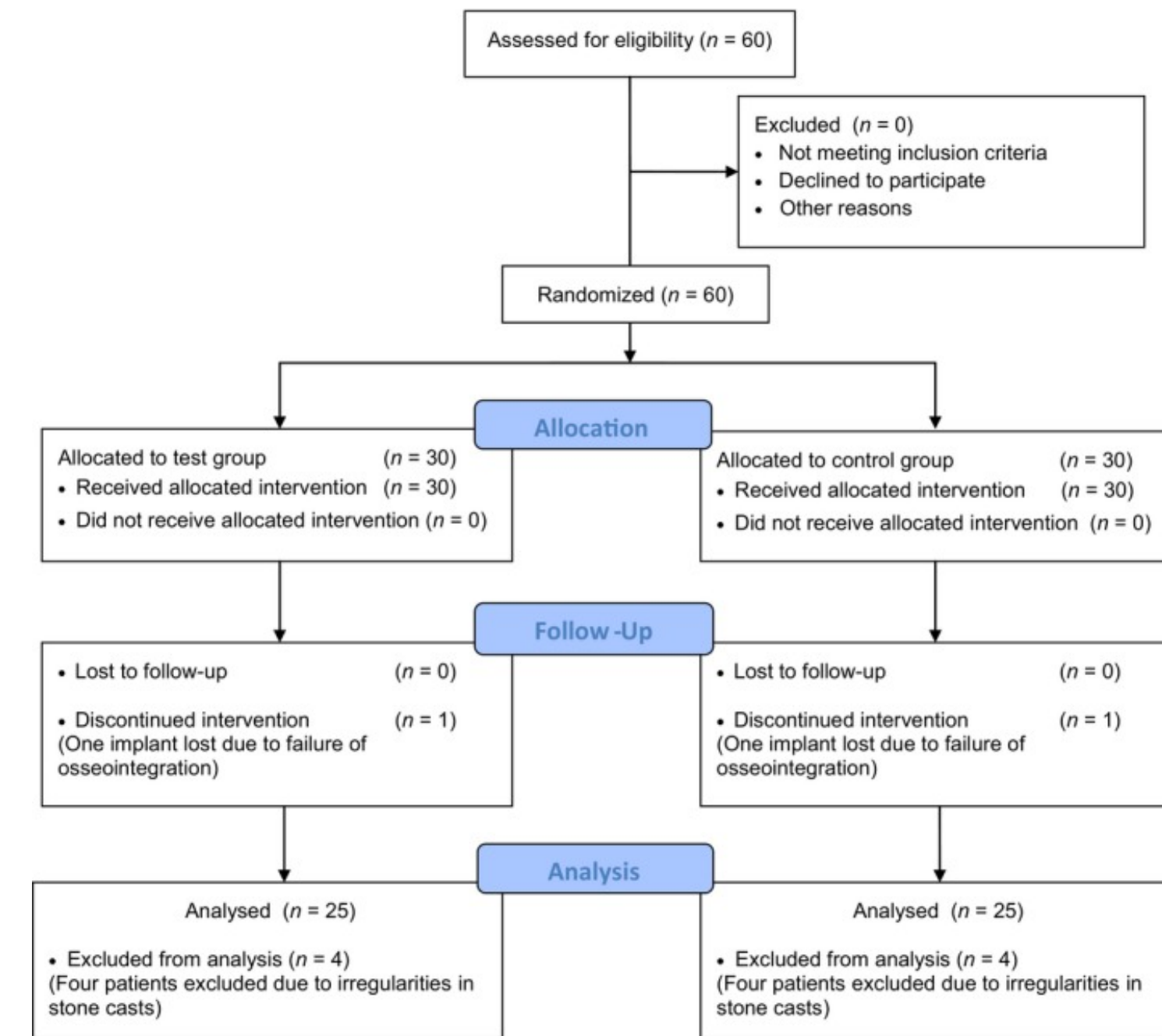
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PUNTOS CLAVE:

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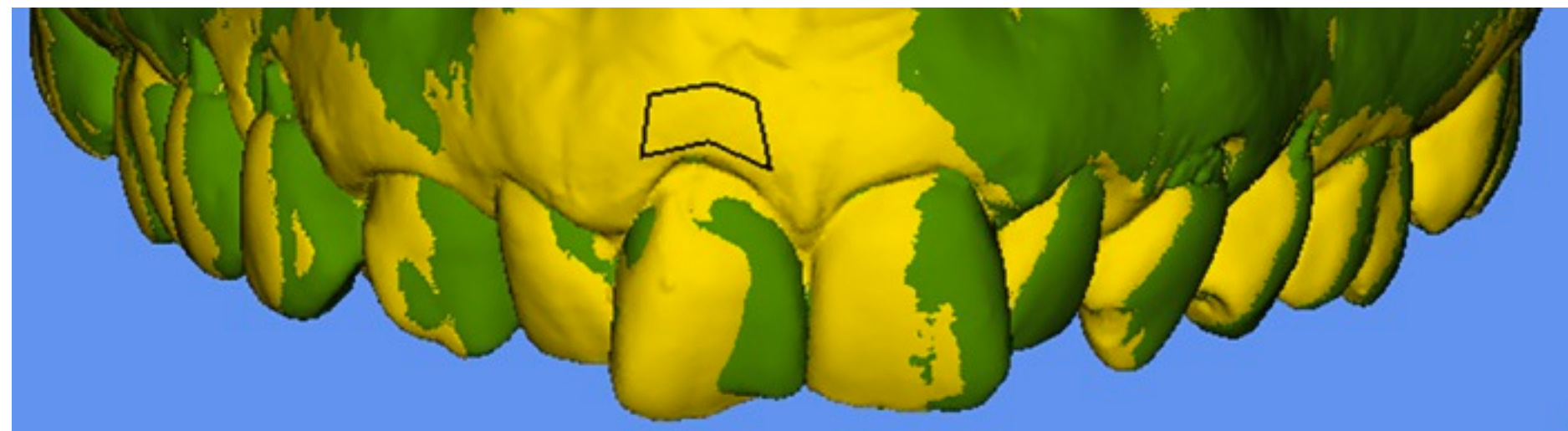
- El artículo intenta aclarar si la realización previa de un injerto de tejido conectivo (ITC) simultánea a la colocación de implantes inmediatos postextracción en zona estética tiene consecuencias positivas sobre la cantidad y calidad de tejido óseo y blando en una evaluación doce meses después de la cirugía.
- Algunos autores preconizan el uso simultáneo de un ITC a la cirugía implantológica en zonas estéticas. Esto conlleva un aumento de la morbilidad y complica la cirugía. Los clínicos queremos saber si merece la pena ofrecer a nuestros pacientes este tratamiento quirúrgico suplementario.



- Se trata de un estudio prospectivo experimental y controlado (RCT) con dos grupos de 30 pacientes cada uno. A todos los pacientes se les insertaron implantes inmediatos postextracción en zonas estéticas. A un grupo de 30 se les realiza simultáneamente un ITC tomado de la región tuberositaria, en vestibular de los implantes insertados. Se comparan exploración clínica, fotografías digitales y escaneado con análisis volumétrico de modelos previamente a la extracción y transcurridos 12 meses tras la cirugía.
- No hubo diferencias significativas, salvo el nivel coronal de la mucosa a los 12 meses, algo más alta en el grupo test (que recibió el ITC).
- Si bien es un estudio randomizado, no distingue entre biotipos gingivales, factor fundamental a la hora de decidirse por un ITC.
- Sería interesante realizar estudios como éste más numerosos, distinguiendo biotipos y probando otras alternativas al ITC, como el uso de injertos dérmicos.



#ADAPAPERS



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