Optimal bone remodeling around Axiom® BL REG implants

• Outstanding bone stability
• Excellent esthetic results

Results from a prospective 3-year multicentre randomized controlled clinical trial

What's PES²?

The PES enables reproducible esthetic evaluation of the soft tissue around single-crowns. 7 variables are evaluated, with a maximum score of 14 per implant.

Excellent esthetic results

The mean bone loss is very limited, confirming the success of the implants, well above the success criteria defined by Misch¹ (bone loss ≤ 2mm from initial surgery).

The very high mean Pink Esthetic Score² observed in this study shows the perfect healing of soft tissues around Axiom® REG implants.
With the courtesy of Dr Sergio Salina

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Specialisation in periodontology in Verona
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PURPOSE
To evaluate if the placement of single dental implants either 0.5 or 1.5 mm subcrestally in healed bone crests has an impact on long term esthetic and biological outcomes.

MATERIALS AND METHODS
Sixty partially edentulous patients requiring two single implant-supported crowns were recruited from six centres. According to a split-mouth design, the two sites were randomly allocated either to 0.5 mm or 1.5 mm subcrestal implant placement. During the healing period of 3 months surgical sites in aesthetic areas were closed while a one-stage approach with transgingival healing screw was followed in non-esthetic areas. Provisional acrylic crowns were delivered and were replaced after 2 months by definitive metal-ceramic crowns. Patients were followed to 3 years after loading. Outcome measures were: crown and implant failures, complications, aesthetics assessed using the pink esthetic score (PES), peri-implant marginal bone level changes, and patient preference, recorded by blinded assessors.

RESULTS
At delivery of definitive crowns, 2 months after loading, the mean pink esthetic score was 11.2 ± 1.9 and 11.1 ± 1.5 for the 0.5 and 1.5 mm group, respectively. At 3 years after loading, the mean pink esthetic score was 12 ± 1.9 and 12.2 ± 1.8 for the 0.5 and 1.5 mm group, respectively. There were no statistically significant differences between the two groups at 2 months (P = 0.626), at 1 year (P = 0.920) or at 3 years (P = 0.296). Three years after loading, patients of the 0.5 mm group lost on average 0.34 ± 0.87 mm and those of the 1.5 mm group 0.19 ± 0.54 mm, the difference being statistically significant (difference = 0.15 mm; 95% CI 0.00 to 0.30; P = 0.046). The implant placement was not reflected in patient preference. There were no differences in outcomes among centres.

CONCLUSIONS
Both surgical protocols resulted in very high esthetic outcome (PES >12) and minimal bone resorption (<0.5 mm) after 3 years. A slightly lower bone resorption was measured with 1.5 mm subcrestal placement compared to 0.5 mm, with no impact on the esthetic score. This tends to show that deeper implant placement might be beneficial only regarding bone stability, which will be confirmed after 5 years of follow-up.