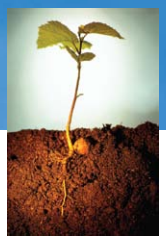

OsteoBiol® by Tecnoss

# Four-mm-long versus longer implants in augmented bone in atrophic posterior jaws: three-year post-loading results from a multicentre randomised controlled trial



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## ABSTRACT

In case of an implant rehabilitation, when the residual vertical bone height is less than 8 mm, clinicians are faced with the dilemma of whether to attempt an augmentation procedure or to place short implants having an intra-bony length of 8 mm or less. In this trial, vertical bone heights at implant sites had to be 5 to 6 mm above mandibular canals, and 4 to 5 mm below maxillary sinuses. Bone thickness had to be at least 5 mm, as measured on cone-beam computed tomography (CBCT) scans. The aim of this RCT was to compare the outcomes of single-implant-supported crowns and partial fixed prostheses supported by 4-mm-long tapered, transmucosal implants with prostheses supported by identical implants of at least 10 mm in length placed in posterior jaws augmented either with mandibular interpositional collagenated blocks of cancellous equine bone (OsteoBiol® *Sp-Block*, Tecnoss®, Giaveno, Italy) or a mix of cancellous and cortical granular collagenated porcine-derived bone (OsteoBiol® *Gen-Os*®, Tecnoss®), placed through a lateral window below raised maxillary sinus epithelium. Patients were followed up to 3 years post-loading. Outcome measures were: prosthesis and implant failures, any complications, and peri-implant marginal bone level changes.
This study tested the null hypothesis that there would be no differences in clinical outcomes between the two procedures against the alternative hypothesis of a difference.

## CONCLUSIONS

Even if the present study presented some limitations (for example, the small sample size and the short follow-up) the Authors concluded that *"three years after loading, 4.0-mm-long implants achieved similar results as longer implants in augmented jaws, but were affected by fewer complications. Short implants might therefore be preferable to bone augmentation, especially in mandibles, since the treatment is less invasive, faster, cheaper, and associated with less morbidity. However, 5 to 10-year post-loading data from larger trials will be necessary before we are able to produce reliable recommendations"*.

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