JCP Digest

Journal of Clinical Periodontology

Paper Digest 2015:42 01

EFP European Federation of Periodontology

Scientific release from the European Federation of Periodontology

Editor:
Iain Chapple,
Birmingham, UK

Rapporteurs: **Eshkol-Yogev, I., Asher, R., Grossman, A., Horwitz-Berkun, R., with Goldstein, M.**

Affiliation: Prepared by the residents of the Postgraduate Programme of Periodontology at the Dept of Periodontology, Faculty of Dental Medicine, the Hadassah-Hebrew University Medical Centre, Jerusalem, Israel.

Link to Original JCP article:
http://onlinelibrary.wiley.com/doi/10.1111/jcpe.12323/full
Access through EFP members page login:
http://www.efp.org/members/jcp.php

Study:

Randomised controlled multicentre study comparing short dental implants (6 mm) versus longer dental implants (11-15 mm) in combination with sinus floor elevation procedures.

Part 1: demographics and patient-reported outcomes at 1 year of loading.

Thoma, D.S., Haas, R., Tutak, M., García, A., Schincaglia, G.P., Hammerle, C.H.F.

J Clin Periodontol 2015: 42 (I), 72-80.

Summarised from original article with kind permission from Wiley Online Library

Relevant background to study:

Treatment of the posterior maxilla with a limited ridge height remains a challenge for clinicians. At present, the sinus floor elevation procedure is the most commonly employed in order to increase the ridge vertical dimension for the placement of dental implants. Due to high complication rates and morbidity associated with this procedure, the use of shorter dental implants has been proposed.

Study aims:

The aim of this study was to test whether or not the use of short dental implants (6 mm) results in similar implant survival rates to long implants (11-15 mm) in combination with sinus grafting.

Methods:

This study was a prospective, randomised controlled multicentre study.
All patients were partially edentulous in the posterior maxilla with a ridge height of 5-7 mm. Patients were randomly recruited to:

- **Short implant group** (6 mm implants)
- **Long implant group** (11/13/15 mm implants)

and underwent sinus grafting procedures using the lateral window technique and particulate bovine bone material.

Six months following surgery the implants were loaded and patients were re-examined after 1 year. 97 patients with 132 implants completed the 1 year follow-up.
Clinical evaluation and implant survival were assessed. In addition, treatment time, price calculation, safety and patient-reported outcome measures (by the Oral Health Impact Profile-OHIP-49) were also measured. Statistical analysis was performed using a non-parametric approach.

Continued . . .

JCP Digest | Journal of Clinical Periodontology | Paper Digest 2015:42 01 | EFP European Federation of Periodontology

Scientific release from the European Federation of Periodontology

Results:

- Mean surgical time: the mean time needed to place one single implant amounted to 52.6 min. in group "short" Vs 74.6 min. in group "graft" – almost 50% longer in the "long" implant group.
- Mean costs: the mean price for group "short" amounted to €941 Vs €1,946 for "long", which was 100% higher.
- Mean severity scores between suture removal and baseline revealed a statistically significant decrease for most OHIP dimensions in the "long implant" group.
- At 1 year, the implant survival rate in both groups was 100%.

Limitations, conclusions and impact:

Limitations:

The principal limitation of this study is that longer-term data are essential for a more comprehensive comparison of the two treatment modalities under investigation. In particular implant survival rates and the need for re-treatment will likely impact negatively upon all of the above listed advantages/patient outcome measures.

Conclusions:

The authors concluded that short dental implants are suitable for implant therapy in the atrophied posterior maxilla and have the following advantages:

- Reduced patient morbidity
- Shorter treatment times
- Lower costs for patients

Impact:

What can we learn as practitioners?

- Restoration of the atrophic posterior maxilla by short implants has potential as an alternative to longer implants that require sinus grafting procedures. In daily clinical practice this alternative is attractive to the clinician (shorter chair time) and to patients (morbidity and cost).
- Within the limitations of this study, both treatments appear to be safe and successful during the initial observation period of 1 year of loading with single crowns. Nevertheless, this is a short-term study and longer follow-up is necessary in order to assess the full implications of both approaches.

Lateral Window Technique Demonstration. By Moshe Goldstein