

Short implants in the posterior region; an evaluation after 10 years

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The hypothesis is that there is no difference in peri-implant bone change between short implants and longer implants in combination with a sinus elevation procedure

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON23463

Bron

NTR

Verkorte titel

Short implants in the posterior region

Aandoening

Missing posterior tooth

Ondersteuning

Primaire sponsor: University Medical Centre Groningen (Netherlands)

Overige ondersteuning: Dept of Oral and Maxillofacial Surgery, University Medical Center Groningen

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Change in peri-implant marginal bone level.

Toelichting onderzoek

Achtergrond van het onderzoek

Background

Adaptation of a dental implant to the existing anatomy by using shorter implants is presumed to be a reliable alternative procedure reducing the number and complexity of surgical treatment procedures, treatment time and morbidity. Short dental implants are thought to be a significant asset when aiming for avoiding bone augmentation procedures. Ten-years studies on short implants revealed that results are favourable and that survival rates are comparable to longer implants. However, the number of studies on short implants is limited and much more studies with longer follow-up periods are needed to confirm these positive outcomes.

Main research question

The primary objective of the study is marginal bone level changes by radiological assessments at 10-years follow-up. Secondary objectives are implant and restoration survival, condition of peri-implant mucosa and patients' satisfaction.

Design (including population, confounders/outcomes)

The study design is an observational study of a group of patients which were treated 10 years ago with a short dental implant and an implant-supported restoration because of a missing tooth in the posterior region. Outcomes: primary outcome is the change in marginal peri-implant bone level 10 years after placing the definitive restoration. Secondary outcome measures will be implant and restoration survival, peri-implant mucosa health and patients' satisfaction using a questionnaire.

Expected results

Stable peri-implant bone levels, high implant and restoration survival rate and satisfied patients.

Doel van het onderzoek

The hypothesis is that there is no difference in peri-implant bone change between short implants and longer implants in combination with a sinus elevation procedure

Onderzoeksopzet

10-years evaluation of study groups

Onderzoeksproduct en/of interventie

Short implants in the posterior region versus longer implants in combination with a sinus elevation procedure in the posterior region

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Inclusion criteria:
- Patients referred to the department of Oral and Maxillofacial Surgery 10 years ago and treated with a short dental implant and an implant-supported restoration because of having a missing tooth in the posterior region. At the time of treatment:
- The patient was 18 years or older;
- The missing tooth was a premolar or molar in maxilla or mandible;
- Sufficient healthy and vital bone to insert a dental implant with a minimum length of 6 mm and at least 4.0 mm in diameter with initial stability > 45 Ncm
- The implant site was free from infection;
- Adequate oral hygiene (modified plaque index and modified sulcus bleeding index ≤ 1);
- Sufficient mesio-distal, bucco-lingual, and interocclusal space for placement of an anatomic restoration;
- The patient was capable of understanding and giving informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Exclusion criteria at the time of treatment:
- Medical and general contraindications for the surgical procedures;
- Presence of an active and uncontrolled periodontal disease;

- Bruxism;
- Smoking
- A history of local radiotherapy to the head and neck region.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Enkelblind
Controle:	Geneesmiddel

Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	01-05-2021
Aantal proefpersonen:	70
Type:	Werkelijke startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Positief advies	
Datum:	15-03-2021
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL9341
Ander register	Medical Ethical Committee of the University Medical Center Groningen : METc number METc 2021/166; UMCG RR number 202100182

Resultaten

Samenvatting resultaten

Guljé FL, Raghoobar GM, Vissink A, Meijer HJA. Single crowns in the resorbed posterior maxilla supported by either 6-mm implants or by 11-mm implants combined with sinus floor elevation surgery: a 1-year randomized controlled trial. Eur J Oral Implantol 2014;7:247-255.

Guljé FL, Raghoobar GM, Vissink A, Meijer HJA. Single crowns in the resorbed posterior maxilla supported by either 11-mm long implants combined with sinus floor elevation or by 6-mm long implants: a 5-year randomised controlled trial. Int J Oral Implantol 2019; 12: 315-326.