Immediate placement and immediate restoration of single tooth implants in post-extraction sites in the aesthetic region

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON21333

Source NTR

Brief title

Immediate placement and immediate restoration of single tooth implants in post-extraction sites in the aesthetic region

Health condition

Failing tooth in the maxillary aesthetic region

Sponsors and support

Primary sponsor: University Medical Center Groningen **Source(s) of monetary or material Support:** None

Intervention

Outcome measures

Primary outcome

Secondary outcome

Implant survival and peri-implant bone changes

Study description

Background summary

Single implant treatment in the maxillofacial aesthetic zone has been shown to be a highly reliable treatment procedure for the rehabilitation of a single failing tooth or a single missing tooth (den Hartog et al. 2008; 2011, Jung et al. 2012; Slagter et al. 2014; Zuiderveld et al. 2018).

Currently, there is a growing tendency to place single tooth dental implants in this zone immediately after extraction of a failing tooth in the fresh extraction socket (Del Fabbro et al.2015; Arora et al. 2017) as an alternative to early (<8 weeks after tooth extraction) or delayed placed implants (>8 weeks after tooth extraction). Presumably, this tendency is related to evolving society factors, with more demanding patients and a wish for a direct result. Innovations in implant surfaces and designs have facilitated the possibilities for such an approach (Lang et al. 2012). There is evidence that clinical, radiographic and aesthetic outcome is comparable for immediate and delayed procedures (Slagter et al. 2015, 2016). Due to this outcome, new guidelines have been introduced leading to immediate placement and immediate provisionalization if possible and ridge preservation in cases of large bone defects (Van Nimwegen et al. 2018).

The introduction of intraoral scanning technology could be a next step to reduce treatment discomfort and treatment time. It is claimed that digital technology will optimize the treatment workflow by providing more comfort and safety for the patient and by requiring less operating time than conventional treatment (Schepke et al. 2015; Joda and Brägger 2016; Mangano et al. 2017; Galllardo et al. 2018). Treatment outcome with respect to fit of restorations is claimed to be better or at least just as good when produced with a digital workflow and has been extensively analyzed in comparative studies. (Chochlidakis et al. 2016; Tsirogiannis et al. 2016; Ahlholm et al. 2018).

Full digital workflows with registration of time/complications during the diagnostic/planning/manufacturing process, together with evaluation of clinical and radiographical performance, PROM's, PES/WES during the follow-up period have never been subject of investigation in single tooth implant treatment of failing or missing teeth in the maxillary aesthetic region.

Therefore, the aim of the prospective case series study, with full digital workflow, is to evaluate single tooth implant treatment for patients with failing or missing teeth in the maxillary aesthetic region, with respect to registration of time/complications during the diagnostic/planning/manufacturing process, evaluation of clinical and radiographical performance and aesthetic outcome.

Study objective

Patients with a satisfaction rate of 80 or more

Study design

pre-treatment, 1 month and 1 year evaluation

Intervention

Dental implant treatment

Contacts

Public

University Medical Center Groningen Henny J.A. Meijer

+31503613840 Scientific University Medical Center Groningen Henny J.A. Meijer

+31503613840

Eligibility criteria

Inclusion criteria

• The patient is 18 years or older;

• The failing tooth is an incisor (central or lateral), cuspid or first bicuspid in the maxilla; the adjacent teeth are natural teeth;

• Sufficient healthy and vital bone to insert a dental implant with a minimum length of 10 mm and at least 3.5 mm in diameter with initial stability > 45 Ncm OR

Sufficient healthy and vital bone to insert a dental implant with a minimum length of 10 mm and at least 3.5 mm in diameter with initial stability > 45 Ncm three months after extraction of the tooth and the procedure of ridge preservation/ridge augmentation in case of a large bone defect;

- The implant site must be free from infection;
- Adequate oral hygiene (modified plaque index and modified sulcus bleeding index \leq 1);

3 - Immediate placement and immediate restoration of single tooth implants in post-e ... 3-05-2025

• Sufficient mesio-distal, bucco-lingual, and interocclusal space for placement of an anatomic restoration;

- The temporary restoration can be designed free from occlusal contact;
- The patient is capable of understanding and giving informed consent.

Exclusion criteria

- 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.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Single blinded (masking used)
Control:	N/A , unknown

Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-03-2020
Enrollment:	60
Туре:	Anticipated

IPD sharing statement

Plan to share IPD: No

Ethics review

Not applicable

4 - Immediate placement and immediate restoration of single tooth implants in post-e ... 3-05-2025

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL8264
Other	METC UMCG : Number 201900878

Study results