Reviewer’s report

Title: Computer-assisted, template-guided immediate implant placement and loading in the mandible: a case report

Version: 0 Date: 27 Jan 2019

Reviewer: Marco Tallarico

Reviewer's report:

Dear author, I read carefully your case report. Unfortunately I failed to find it unique and relevant. This is a conventional case of immediate implant placement and loading in the mandible. Following you can find other suggestions, set by step.

Title

- Computer-assisted and template-guided immediate implant placement and immediate loading in the edentulous mandible. A case report.

Patient was not edentulous at the time of treatment. Title should be: Computer-assisted, template-guided immediate implant placement and loading in the mandible: a case report

Authors' affiliation.

- The purpose of providing author affiliations is to indicate the institution(s) where the research was performed, and to provide readers with a way of contacting the authors.

Please report simple and clear affiliations. Do not use short forms or acronyms. Others authors' notes should be avoided.

Running head should be: Guided implant placement and loading

Abstract

- According to the journals' guidelines, background should report "why the case should be reported and its novelty". Please rephrase the background accordingly.

Case presentation

- Decision finding and treatment approach were based on computer assisted implantology (CAI) technology including detailed virtual three-dimensional implant planning (3Diagnosys).
Decision finding and treatment approach were based on… should be Diagnosis and treatment approach were based on…

Computer assisted implantology (CAI) technology should be replaced with Computer-assisted and template-guided technology. Computer-assisted and template-guided technology is already evidenced in the literature, and used by the author in the title. Ih the authors prefer to use "Computer assisted implantology (CAI)" they have to use it in all the manuscript.

- FDP have to be defined: Fixed dental prosthesis (FDP).

- Define "a regular healing time"

- The use of two templates should be reported in the case presentation.

Conclusion have to be rewritten considering that this is a case report of conventional implant placement and loading. In this way seems that CAI technology is a novel treatment concept. This should create confusion.

Background

- Computer assisted implantology (CAI)…

As I wrote before, I suggest to replace it with Computer-assisted and template-guided…

- While only few guided implant placement systems were available at the time, today, multiple CAI software are available on the market.

Personally I disagree. Please provide a reference or remove.

- Thus, the guided surgery approach is still controversially discussed (14-16).

I disagree. I know that the procedure is safe and predictable within the published limits and following precise protocol. Please provide updated references or rephrase. Also consider:


However, a systematic and concise approach performing the single steps in the treatment sequence will allow for accurate guidance and additionally the possibility for using multiple templates with different supports, i.e. teeth and implant support combined in a sequenced order.

This sentence could be removed or moved into discussion section.

While some patients wish to be informed in detail about the specific treatment steps, most of them want to know whether they would have to leave the dental office without teeth at some point of the treatment. In this context, immediate implant placement after tooth extraction and immediate implant loading with a fixed provisional reconstruction may help the patient as time after extractions and osseointegration is consolidated.

Postoperative morbidity after flapless surgery is significantly improved compared to the traditional open approach, especially in edentulous patients (17, 18).


Later during the treatment, reconstructions fabricated with the help of computer assisted design / computer assisted manufacturing (CAD/CAM) provide highest material quality and aesthetics.


Although CAI and CAD/CAM procedures have facilitated towards a straightforward workflow in the rehabilitation of edentulous patients, immediate implant placement and immediate loading protocols combined are complex and required a high level of organization between the implantologist, the technician and the patient.

Please rephrase, reporting why this case is unique.
- The aim of the present report was to report on the feasibility of combined immediate implant placement and loading approach using CAI in the rehabilitation of a patient with a partially dentate mandible asking for a comprehensive treatment and, specifically, not accepting being edentulous all the while.

Personally I failed to find this case unique and/or particular.

Case report

- The partially dentate 74-year old patient presented with masticatory problems due a removable partial denture (RPD) with insufficient stability in combination with chronic pain condition in the lower front teeth area.

Did the author check and rebase the RPD before suggesting teeth extraction and implants? Did the authors try to perform a periodontal initial therapy with teeth splinting before extraction?

- She asked for a comprehensive treatment that she would fund herself

I did not understand what the authors meant.

- "some teeth with increased mobility grade III"

Did the patient underwent the RPD during night? As the authors know, teeth mobility alone is not primary cause for teeth extraction. Teeth mobility could reduce.

- The initial panoramic radiograph reveled stable crestal bone in the lateral mandible area.

What does stable crestal bone mean? How it is possible to define at the panoramic radiograph?

- Thus, focusing on the lower jaw, the single tooth prognosis was fair for the teeth 47, 42 and 33 and hopeless for the teeth 41/31/32 (19).

As I wrote before. Did the patient underwent the RPD during night? As the authors know, teeth mobility alone is not primary cause for teeth extraction. Teeth mobility could reduce.

- After extraction of the painful and extremely mobile lower front teeth 41/31/32

Please report time between first extractions and guided implant placement.

- Extracting the teeth 42 and 33…

Did the author mean extracting the teeth 42 and 33 at the time of implant placement?

- Based on the anatomical conditions and prosthetic planning (i.e. provisional RPD), six implants were virtually planned.
i.e. provisional RPD… please explain

- The template was then removed and the lower canines (previously supporting the guide) were extracted.

Did the author mean… The template was then removed and the teeth 33 and 42 (previously supporting the guide) were extracted.

Did the author maintained the same position of the ancor pins? Please explain.

- conventional impression

Please explain.

Did the framework titanium od cobalt-chromium? It is not clear. Authors reported both materials.

- At the one year follow-up appointment, healthy mucosal and stable crestal peri-implant conditions could be observed

How the authors assessed healthy mucosal and peri-implant conditions? Please report.

- Only few case reports are available in literature describing the entire workflow using guided surgery and immediate loading (3, 4).

I completely disagree. For example:


- With this approach the passive fit of the FDP was maximized, the clinical chairside efforts (in terms of abutment connection and occlusal adaptations) were minimal and the predictability was very high compared to different limitations and problems reported in a recent review (20).

This review concluded with similar results but only a 12 months, and stated that "Future long-term clinical data are necessary to identify clinical indications". Please rephrase or delete your statement, or change the reference.

Conclusions

Please, limits the conclusions considering that this is a case report. Also change "CAI technology" in order to avoid confusion within readers.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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Needs some language corrections before being published

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