Reviewer’s report

Title: Sinus lift and dental implants as a cause of rhinosinusitis

Version: 1  Date: 5 June 2014

Reviewer: Ranieri Martuscelli

Reviewer’s report:

Dear Sir,

Thank you for the opportunity to review this paper.

My overall comment for the manuscript is the following:

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Important data were gathered (this is the main reason not to reject the paper) but the presentation is quite poor and a real discussion is missing.

I am convinced that a major revision of the manuscript will improve its readability and may render the paper available to supply valuable informations to the scientific community.

I will be happy to serve as a reviewer also for the revised version if you decide so.

Here follow requested assessments related to the specific points and specific comments related to the sections of the manuscript that I hope may assist the Authors in the revision process.

1. Is the question posed by the authors new and well defined?

The topic proposed has been treated in many studies but new data are certainly welcome and may add more informations definitely valuable for the clinical management.

The Authors did not state the aim(s) of the study. See Introduction section related comments and references suggestion.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

Surgical methods for sinus lift and details reagarding type of grafting material are missing. Surgical procedures are very important variables in relation to the main topic of the study.

Figures regarding the number of implants and patients followed should be moved to the Results section since this is a retrospective type of study.

Authors should indicate: 1) place of treatment 2) modalities of patient recruitment
(inclusion and exclusion selection criteria) 3) approval of the study by the Ethical Committee 4) execution of the study in full accordance with ethical principles, including the World Medical Association Declaration of Helsinki and collection of an informed consent from the patients.

See Materials and Methods section related comments and references suggestion.

3. Are the data sound and well controlled?
Clinical data seem to be sound, but the Authors could present many more data, out of the informations that they seem to have collected, for example in addition to the number of patients presenting sinusitis it should be reported if mono or bilateral, how many sinuses were involved and if occurring in patients who underwent monolateral or bylateral sinus lift procedure. A possible relationship with the type of surgical procedure and the type of grafted material should be described.

See Results section related comments and references suggestion.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Presentation of Results is quite poor.
Tables should be added to describe: total number of patients, total number of sinus lift (mono or bilateral), type of surgical procedures (if different), type of material grafted.

See Results section related comments and references suggestion.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
A real discussion section, where the Authors discuss their findings in relation to what has already been published, is missing. The part presented in the Discussion section should essentially be moved to the Introduction section.

See Discussion section related comments and references suggestion.

6. Do the title and abstract accurately convey what has been found?
The title should describe the different part of the study and appeal the reader.
Example:
A case control retrospective clinical study : type of study of occurence of rhinosinusitis: investigated pathologic entity in patients undergoing maxillary sinus lifting, grafting and simultaneous implant insertion (if sinuses were grafted and received concurrentimplant insertion) or and delayed implant insertion (if received a delayed implant insertion) : cohort of patients studied.
The abstract shoud be re-written after manuscript revision

7. Is the writing acceptable?
A scientific language revision by a native speaker is encouraged.

Specific Comments:

Introduction

Please completely re-write the section merging the text also with the actual discussion section.

Please provide aims of the study that should contain also statement of purpose and hypothesis and statement of specific aim. It is important to not leave these statements to the imagination of the reader.

The Authors should use more scientific “dental” terms when describing published data on implants

Some examples:

Page 2 line 4 “...the implanted screw becomes securely attached to the bone...” the sentence describes the “osseointegration” so the sentence would rather be: implant becomes osseointegrated.

Page 2 line 18 “...dental implant rejection..” A real rejection phenomenon has hardly ever been described since the vast majority of the implants currently used are made of titanium, a biocompatible material. Most of the studies in the literature describe complications as: a lack of osseointegration and failure of the implant or a periimplantitis and a loss of osseointegration.

Author shoud report in the introduction the occurrence of sinusitis also from series of cases and not only single case report.

Reference:

- Sinus en block inlay grafting with lateral approach and bone lid replacement: report of a series of cases

Sbordone L; Sbordone C; Toti P; Menchini-Fabris GB; Califano L; Guidetti F
J Oral Maxillofac Surg 68: 221-226; 2010

Materials and Methods

Authors should state at the beginning of the section the type of study, i.e. a retrospective case control study.

Authors should describe surgical methods more in details: Type of surgical procedure for sinus lift, type of grafted material, if any, procedure of implant insertion, concurrent with sinus lifting or delayed, type of implants inserted (submerged or transmucosal).

Surgical methods for sinus lift and details reagarding type of grafted material are completely missing. Surgical procedures are very important variables in relation to the main topic of the study.

Figures regarding the number of implants and patients followed should be moved to the results sections since this is a retrospective type of study.
Authors should also indicate: 1) place of treatment 2) modalities of patient recruitment: please state if patients were consecutively treated, please describe inclusion/exclusion selection criteria 3) approval of the study by the Ethical Committee 4) execution of the study in full accordance with ethical principles, including the World Medical Association Declaration of Helsinki and collection of an informed consent from the patients.

A SNOT-22 questionnaire is a self assessing type of questionnaire apparently administered only post-operatively.

Authors should indicate if a pre-op ENT clinical evaluation, including an intranasal endoscopic inspection, was run on every patient undergoing sinus lifting.

Authors should also indicate if a CT or a CBCT was run on patients undergoing sinus lifting to evaluate the presence of localized sinus disease.

Reference:

Did the pre-op or post-op CAT scan include a study for the osteomeatal complex status?

Results

Clinical data seem to be sound, but the Authors could present many more data, out of the informations that they seem to have collected, for example in addition to the number of patients presenting sinusitis it should be reported if mono or bilateral, how many sinuses were involved and if occurring in patients who underwent monolateral or bylateral sinus lift procedure. A possible relationship with the type of surgical procedure and the type of grafted material should be described.

Presentation of Results is quite poor.

Tables should be added to describe: total number of patients, total number of sinus lift (mono or bilateral), type of surgical procedures (if different), type of material grafted.

The 3 patients that were reported to have chronic sinusitis, were diagnosed before the sinus lift procedure? If yes were those patients appropriately treated before the sinus lift, graft and implant insertion (with antibiotic therapy and/or FESS) before surgery. Not treating this pre-existing condition may be the cause of the sinusitis after sinus lift.

Reference:
It should be then discussed in the new discussion section.

Discussion

A real discussion section, where the Authors discuss their findings in relation to what has already been published is missing. The part presented in the Discussion section should be moved to the Introduction section.

At actual Page 6 line 15 “…Therefore, one might expect that implants protruding into the sinus..”

The Authors should discuss the point also regarding the possibility of implant protrusion in the sinus after sinus grafting and no interference with the long term success of implants, sinus health and graft stability.

References:
- Implant Success in Sinus-Lifted Maxillae and Native Bone: A 3-year Clinical and Computerized Tomographic Follow-up
  Sbordone L; Toti P; Menchini-Fabris GB; Sbordone C; Guidetti F
  The International Journal of Oral & Maxillofacial Implants 24: 316-324; 2009
- Apical and Marginal Bone Alterations around Implants in Maxillary Sinus Augmentation Grafted with Autogenous Bone or Bovine Bone Material and Simultaneous or Delayed Dental Implant Positioning
  Sbordone L; Levin L; Guidetti F; Sbordone C; Glikman A; Schwartz-Arad D
- Volume Changes of Autogenous Bone in Sinus Lifting and Grafting Procedures: A 6-year Computerized Tomographic Follow-up
  Sbordone C, Toti P, Guidetti F, Califano L, Bufo P, Sbordone L
  J Cranio Maxillofacial Surg 41: 235-241; 2013

Authors should discuss the possibility that a pre-existing Localized Sinus Disease may cause postop sinusitis.

References in addition to the references above reported:
- Volume Changes of Grafted Autogenous Bone in Sinus Augmentation Procedure
  Sbordone C; Sbordone L; Toti P; Martuscelli R; Califano L; Guidetti F
- Volumetric changes after sinus augmentation using blocks of autogenous iliac bone or freeze-dried allogeneic bone. A non-randomized study
  Sbordone C, Toti P, Guidetti F, Califano L, Pannone G, Sbordone L
  J Cranio Maxillofacial Surg 42(2): 113–118; 2014
- Five-year outcome of bone remodeling around implant in the maxillary sinus: what difference is there between dental implants placed into autogenous inlay bone block and ungrafted maxilla?
  Martuscelli R, Toti P, Sbordone L, Guidetti F, Ramaglia L, Sbordone C

Thank you very much for your attention.
Best regards
Prof. Ranieri Martuscelli, MD DDS

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
'I declare that I have no competing interests'