Author's response to reviews

Title: An observational cohort study of the effects of septoplasty with or without inferior turbinate reduction in patients with obstructive sleep apnea

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Author's response to reviews: see over
Response to the editor and reviewers reports:

1. Reviewer 1, dated June 26th 2014:

   A. The decision of what type of surgery performed was clinical. All patients had a deviated septum that needed surgical treatment. Some of the patients had hypertrophy of the inferior turbinates as well. If there were a coherence between the patients complaints of nasal blockage on both sides, and there was obvious swelling of the inferior turbinates that was relieved after decongestion with tetracain/adrenalin over 5-10 minutes in the office, one would recommend that turbinate reduction should be performed at the time of the septal surgery. This information is added in lines 101 – 104: This was an observational, retrospective study, not a prospective study, and we did not have any opportunity to do objective testing of nasal obstruction with acoustic rhinometry (AR) or rhinomanometry (RM). However, we are following up this study with a controlled prospective study where other objective parameters will be measured, including AR and RM as well as peak nasal inspiratory flow (PNIF).

   B. Regarding complications there were no major complications related to the turbinate reductive surgery. The patients were informed of the possibility of crusting in the nose for a period up to three weeks after surgery, but there were not any complaints of postoperative infections, necrosis or loss of nasal function at the follow up three months later. This information is added in lines 108 – 110. The patient population is widespread, and there is a chance that the general practitioners treat complications without informing the hospital of the patients complaints or the type of treatment given.

   C. We have included all information about the numerical results in a table (Table 1). This table replace the information given in the former Table 1 (preoperative details) and Figures 1-4 (results). The former Figure 5 is then renamed as Figure 1.

The article mentioned from the februar issue of Eur Arch Otorhinolaryngol. 2012 is very interesting indeed, and is of particular interest regarding the work we have ahead of us.

2. Reviewer 2, dated September 3rd 2014:

Major revisions:

1. The lack of objective measurements is indeed a problem. This is a retrospective observational study in regard to the surgery performed. Therefore, we had no way of testing the nasal obstruction in an objective way at the time of the study. The findings in this paper are therefore not conclusive in any way, and we plan to do a prospective, controlled trial where acoustic rhinometry, rhinomanometry and peak nasal inspiratory flow will be performed. There is also a planned multidisciplinary study coming up, in which evaluation of the nasal and pharyngeal airways are being measured using Computational Fluid Dynamics (CFD) models, before and after nasal surgery, in order to find a database for responders and non-responders of nasal surgery in this particular group of patients. The information of allergic rhinitis or asthma are based on patient self-evaluation, and we have not regarded this as sufficient grounds to publish. None of
the patients had any nasal polyps or enlarged adenoids on nasal endoscopy and none were diagnosed with sinusitis. We have included this information in the revised text lines 96 - 98.

2. We have included information about the postoperative medication and treatment in lines 105 - 108.

3. The essential conclusion is not clear, and we refer to comment 1 above. There is a need for a prospective, controlled trial to evaluate the findings of this cohort study.

4. In the conclusion section of the paper we have defined more clearly the border between the subjective and objective parameters in line 226. The ESS score is not included as an objective parameter, but as a subjective one.

Minor Essential Revisions:
1. In the former line 63, “OSA” is defined.
2. In the former line 67, “FSI” is defined.
3. In the former line 85, “obstructive sleep apnea” is changed into “OSA”.
4. In the former line 102, “AHI” is defined.
5. In the former line 112, “apnea-hypopnea index (AHI)” is changed into “AHI”.
6. P-values are described unless they are below the value of 0.001.
7. We have changed the description of standard deviations from “SD” to “±”.
8. In the former line 155, “CPAP/bipap” is defined.
9. In the former line 155, “obstructive sleep apnea” is changed into “OSA”.
10. In the former line 208, “quality of life” is changed into “QOL”.
11. In the former line 214, comma is inserted after “In this observational cohort study”.
12. The sentence in line 329 has been corrected so it fits the figure it refers to.

Discretionary Revisions: The Maximum apnea time, mean apnea time, minimum blood oxygen saturation, mean blood oxygen saturation and ratio of snoring time to sleep time have been documented in the sleep report using the Embletta and Reggie polygraph. However, we singled out AHI, ODI, ESS and BMI as the endpoints that we wanted to evaluate with regards to differences in the two surgery groups.

Editorial comments:

1. We have included information about the written informed consent in the methods section lines 114 - 115. This was obtained from all participants.
2. We have used the cohort checklist as described in the STROBE guidelines, and ensured that our manuscript adheres to the 22 points mentioned.