Reviewer’s report

Title: Changes in Prostaglandin E2 in patients with idiopathic OAB after BoNT-A (botulinum toxin type A) treatment: is there a clinical benefit?

Version: 3 Date: 19 August 2014

Reviewer: Maria Furlan

Reviewer’s report:

The topic of the current study is certainly interesting and the identification of a biomarker in the diagnosis of OAB syndrome could have a crucial role in the clinical practice. Authors prospectively analyzed the effect of botulinium toxin therapy on PGE2 blood values and symptoms in patients affected by wet and dry OAB syndrome. This is the first study in a human sample on this specific topic reported in the literature.

Major Revisions

1 In the results section (paragraph “therapeutic success”) is it not clear which are the efficacy outcomes used by the authors and the results data are not well expressed.

2 In the method section should be carefully described the population from which the cases and controls were selected. Additionally, the period considered for the study must be specified. You write about “typical symptoms” (page 5, line 14) as inclusion criteria (even if it is not mentioned in the dedicated section below “inclusion criteria”) without any clarification about them.

3 All data about patients (number, gender, age…) must be reported in the result section better in a separate table; moreover data about gender in control group are lacking.

4 English language needs to be revised.

Minor Essential Revisions

5 In the method section of the abstract the statistical tests used for the analysis must be specified.

6 Page 7, lines 8-9: you report 58 patients, but 12 + 44 = 56.

7 I would suggest the division of patients in groups (i.e. Group 1A: wet OAB; Group 1B: dry OAB, Group 2: controls). This division should be useful to better explain the results using a table in which report for every group: patients characteristics, mean PGE2 values before and after treatment, efficacy of treatment, follow-up, and statistical analyses.
The use of acronyms should be more precise. They should be avoided in the title. ICIQ-SF, KHQ (Page 5, line 33) and IC/BPS (Page 9, line 10) are not described before.

All the commercial products must be reported with complete information about name, factory, city, state, and country. Page 6, line 22: ELISA (PGE2 ELISA kit, R&D Systems)... page 7, line 3 (SPSS for Windows, version 18)... these information are not enough: cities, states, and countries must be added.

Page 5, line 14: change “# 52 years” with “mean age of 52 years”. The same for page 5, line 18. Page 7, line 16: please add the word “range” in the parenthesis.

For two statistically significant correlations reported in the text, “p value” is not specified (page 7, line 15; page 7, line 18).

Reference number 6 is cited into the text but not reported in the references section.

Page 8, line 18: you must be more precise about follow-up period. Please report the mean follow-up and the range of the entire series and of each group.

Page 8, line 3: only 30 (51.7%) patients had postoperative PGE2 values. In my opinion, in a prospective study, this lack of data is not acceptable (at least it should be better motivated).

Please check the legend of figure 3: you wrote increase with symbol + and decrease with symbol -. 

Please check the figure 3: x- and y- coordinates are lacking (% and time).

Level of interest: An article of outstanding merit and interest 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