Reviewer's report

Title: Botulinum toxin in gastric submucosa reduces stimulated HCl production in rats. A randomized controlled study.

Authors:
Matteo Runfola (runfola@tiscali.it)
Dr Simone Rossi (sinodoc@tiscali.it)
Simona Panunzi (simona.panunzi@biomatematica.it)
Pier Luigi Spada (plspada@hotmail.com)
Daniele Gui (daniele.gui@rm.unicatt.it)

Version: 1 Date: 11 Apr 2003

Reviewer: Martin Storr

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

The authors studied in an in-vivo setup the effects of mucosal gastric injections of BTX vs. Saline on stimulated gastric injections and furthermore give information of weight gain and food intake 14 days post-intervention.

The finding gives further information on BTX-mode of action and though the mentioned clinical implications remain speculative, the findings are interesting to those with closely related research interests.

Abstract:

Delete 2nd sentence.
L 17 include p values

Background

P3L12 delete cardia, use lower esophageal sphincter instead.
P3 para 2 this para fits in the discussion.
P4 L3-7 Should we rewritten. Though the findings are interesting, the implication that BTX injections in human stomach for treatment of obesity might fail due to the high costs of BTX, the need of frequent re-treatment and the size of the human stomach and therefore the necessity of hundreds of single injections. For this suggestion I also miss some information on the tissue diffusion of BTX in the discussion.

Methods

P5 L8 multiple injections - isn't there a definite number of injections? Did the number differ between the two groups?
P5 L 19 Did the animals die post intervention or within the course of the two weeks?

Please include a statement that the experiments were approved by a ethics committee.
Results

Table 1: 32 animals in the BTX group, 7 died = 25 animals left. Tab 1 shows only 24 for HCL production but 26 for the weight and food intake observations. Same applies the group of saline treatment.

Fig. 2 and 3: No information given on which animals are included all or only the survivors at d14? I suggest to only include the survivors and give this crucial information in the legend.

Discussion

Throughout: delete untreated, use SALINE treated instead; delete treated and use BTX-treated instead.

L4: The effect is highly reproducible, both in adult and (to a lesser extent) in juvenile animals. Please show this subgroup-data in the results section and in additional figures.

Next sentence, better start like: The underlying mechanisms remain unsolved, we suggest that......and then include these data on the X-ray experiments that you discuss since this is an interesting observation.

Discussion overall: Please reduce some of the speculation, and reorganize the discussion. The title giving data are discussed in two sentences P8 L9-12 but are worth more discussion. Probably discussion on the findings of Kondo-T 1977 Experientia in the context of your findings will make a good point. The discussion should be mere focused on your findings and the section with general information on BTX is better located in the introduction.

Competing interests:

None declared.