Reviewer's report

Title: Intraprostatic Botulinum Toxin Type A injection in patients with benign prostatic enlargement: Duration of the effect of a single injection

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Reviewer: Rahmi Onur

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Major Compulsory Revisions

Authors in this study reported their continuing experience with injection of BoNT/A to prostate of patients with urinary retention. The study is important since giving new insights to the concept of the effects of single dose of BoNT/A and to the changes of lower urinary tract dynamics in an 18-mo period. Although the study will bring several ideas it should be acknowledged that the design, study population, methods used in evaluation are not well studied. To improve the quality of paper, I would first like to suggest the manuscript to be reviewed and revised by a native speaker of English and re-write with correcting several grammar and syntax errors.

With respect to several parts of the study, I will have some suggestions.
- The pages in text should have been numbered.
- Paragraph starting with the sentence of “Most studies ….” needs to be carefully reviewed because of grammar errors and lack of interpretation. This paragraph should be re-written.
- Similarly, the last sentence of Introduction is ”Here we report, the time changes induced by a single injection of BoNT/A on prosate volume,…….” which needs to be clarified.
- An important limitation in patient selection is having frail/elderly patients with a mean age of 81 years. Moreover, these patients all had indwelling catheters. Do authors have pressure flow studies of patients’ in this group? How did they conclude that the retention is due to BPO? Bladder decompensation is a well known problem in this age group of patients. Was there a way to exclude a atonic or hypotonic bladder?
- Of the 21 patients, eleven found to be available. This number is quite low and limits definitive conclusions.
- Pre-intervention and post-intervention objective measurement of lower urinary tract behaviour by urodynamics is lacking. It would be better to give pressure flow changes after the BoNT/A, if present.
- Why did authors remove foley catheters after 1 month? Is there a specific reason, experience?
- Did authors consider prostate cancer in these patients who had a mean age of
81? What would have been the effects of prostate cancer to the injection of BoNT/A, if present? Were they expecting the same efficacy of BoNT/A as in BPH?

- Despite significant reduction in volume of prostate after BoNT/A injection, there is no accompanying decrease in PSA? If the hypothesis is atrophy and apoptosis, then PSA would have been decreased.
- What was the quality of life score at baseline? If there is no, how could a comparison be made by authors?
- Discussion, second paragraph, last sentence: “Likewise, prostate size……” – it does not sound the meaning- I suggest a clarification.
- Similarly, Discussion, third paragraph should be re-written.
- Overall, the weakest point seems to be the discussion of the mechanism of action of BoNT/A and several limitations regarding the design. Although, authors attempted to give explanations, I would suggest to detail the mechanism of action of BoNT/A and especially discuss the role of apoptosis, block of ACh receptors, effects of BoNT/A on afferent nerves and volume relation.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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’