Author’s response to reviews

Title: Effect of prostate gland weight on the surgical and oncological outcomes of extraperitoneal robot-assisted radical prostatectomy

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Author’s response to reviews:

Thank you for your thoroughly reviewing our manuscript (BURO-D-18-00315) entitled “Effect of prostate gland weight on the surgical and oncological outcomes of extraperitoneal robot-assisted radical prostatectomy” Also, we are grateful for the chance to revise our manuscript. The manuscript has been rechecked and the necessary changes have been made in accordance with the reviewers’ suggestions.

We hope that our revised paper is acceptable for publication in BMC Urology, and we look forward to receiving your final decision.

Thanks, again.

Sincerely,

Young Deuk Choi M.D., Ph.D
[Reviewer 1]

Thank you for your good evaluation of our research. We are grateful for the chance to revise our manuscript. The quality of our study will increase due to your proposals. Our manuscript has been carefully revised according to your comments.

We hope that our revised paper is acceptable for publication in BMC Urology, and we look forward to receiving your final decision.

1) Comment
   → Interesting paper which adds to the literature for EP-RARP. Would be interesting if authors could add in data about comparison of post-op weight with TRUS weight
   - Answer

Thank you for suggestion. As you have suggested, we added the data about comparison of post-op weight with TRUS weight.

   - Supplement content in manuscript

We added it in Table 1. (Table 1, page 9)

[Reviewer 2]

Thank you for your review. We are grateful for the chance to revise our manuscript. The quality of our study will increase due to your proposals. Our manuscript has been carefully revised according to your comments.

We hope that our revised paper is acceptable for publication in BMC Urology, and we look forward to receiving your final decision

1) Comment
   → Background: line 18, confusing wording
   - Answer

Thank you for comment. We apologize for confusing wording. We modified it.

   - Supplement content in manuscript
According to the studies on the impact of prostate weight on the operative outcomes of ORP, the larger the prostate size, the greater the risk of blood loss and blood transfusion, and the smaller the prostate size, the greater is the incidence of a positive surgical margin [5]. In laparoscopic RP, similar to what is observed in ORP, there is proportionate increase in the amount of bleeding as the prostate enlarges in size, and the smaller the prostate size, the higher the incidence of a positive margin.

(Background section, line 14-22, page 3)

2) Comment
   → methods: line 55, did you exclude patients who had metastasis after RARP? If so, isn't that an oncological outcome that should have been included? If not, then perhaps clarify that these patients had metastasis prior to surgical intervention for prostate cancer
   - Answer

Thank you for the comment. Excluded patients had metastasis or bladder invasion prior to surgery. We diagnosed it with prostate MRI or whole body bone scan before performing RARP. As you have suggested, we clarified it in manuscript.

   - Supplement content in manuscript

In total, 1168 patients were included after excluding patient with inadequate medical records and suspected metastasis (clinical T4 or M1) on preoperative magnetic resonance imaging (MRI) of the prostate or whole body bone scan prior to surgery for prostate cancer.

(Methods section, line 53-59, page 3)

3) Comment
   → results: line 34-37, provide numbers and p-values for the significant findings (mean console time and mean estimated blood loss)
   - Answer

Thank you for the comment. We added the numbers and p-values for the significant findings as you have suggested.

   - Supplement content in manuscript

The mean console time and mean estimated blood loss were significantly increased with increasing prostate weight (P<0.001).

(Results section, line 36-38, page 5)
4) Comment

→ results: only look at operative outcomes as a function of prostate weight; would be nice to see multiple linear regression to see if operative outcomes such as EBL and console time are associated with any other factors such as age, BMI, clinical stage, prior abdominal surgery, etc. Or at least mention this as limitation of the study in the discussion.

- Answer

Thank you for suggestion. Sadly, we did not do the multiple linear regression analyses of factors associated with EBL and console time. We are so sorry that we could not add the multiple linear regression analysis. But as you have advised, we added the mention as limitation of the study in the discussion.

- Supplement content in manuscript

Finally, we did not perform multiple linear regression analyses of factors associated with operative outcomes. If we had performed it, we would have been able to increase the validity of the study.

(Discussion section, line 30-32, page 7)

5) Comment

→ discussion: line 10, wording "whereas" is inappropriate

- Answer

Thank you for comment. We apologize for inappropriate wording. We corrected it.

- Supplement content in manuscript

Briganti et al. [19] reported that PCa in smaller glands is more aggressive, and therefore there are higher rates of ECE than when PCa involves larger glands

(Discussion section, line 10-12, page 6)

6) Comment

→ conclusion: line 40-41, can you conclude that ER-RARP may be safely performed "regardless" of prostate size without acknowledging that factors other than prostate size may have contributed to the finding of significantly higher EBL?

- Answer
Thank you for comment. As you have mentioned, it is true that the size of the prostate is correlated with the amount of estimated blood loss in this study. However, there were no statistically significant negative peri and postoperative outcomes such as transfusion, operative complication, pathologic outcomes or longer hospitalization due to increased estimated blood loss. So we concluded that we could perform EP-RARP safely regardless of the prostate size. We modified the text to better communicate the meaning of the context.

- Supplement content in manuscript

In this study, the size of the prostate was correlated with the amount of estimated blood loss and console time. However, there were no statistically significant negative operative outcomes such as transfusion, longer hospitalization, longer catheterization, operative complications or oncologic outcomes due to increased estimated blood loss. Therefore, we concluded that we could perform EP-RARP safely regardless of the size of the prostate.

(Discussion section, line 38-47, page 7)