

EDITORIAL COMMENT

The impact of prostate weight (PW) have been a topic of analysis for radical prostatectomy (open, laparoscopic and robotic approaches) for quite some time. Recently, Yong et al from Duke University, observed in a population of 523 RARPs, that larger prostates were associated with longer operative times (OT) and this effect was maintained independently of cumulative robotic experience (another independent factor in determining OT).¹ Moreover, other large robotic series, including the current series, have not observed such time-related outcomes.^{2,3} Possible explanations of the discordance include the lack of overcoming the learning curve and other patient-related factors (degree of nerve sparing, performance of a pelvic lymph node dissection and pelvic anatomy).

Prostate weight however does appear to impact pathological outcomes in RARP series. Zorn et al previously published on a transperitoneal series of 375 RARP cases which were stratified by PW similar to the current study (< 30, 30-50, 50-80 and > 80 g). While age and PSA were significantly higher in larger prostates, no significant differences in OT, blood loss, transfusion rate, hospital stay, length of catheterization, anastomotic leakage or complications were observed.³ The objective return of baseline and subjective sexual and urinary function, as determined by validated questionnaire scores, was not affected by the PW. Pathologically, the overall rate of positive surgical margins (PSM) was significantly different among the groups ($p = 0.002$), demonstrating a trend of increasing PSM with a lower PW. Within the patients with stage pT2, a significant increase in PSM was found with lower PWs ($p = 0.026$).

In a follow up paper from the same institution, Msezane et al reported on the relationship of PW with PSM and extracapsular extension (ECE). In a series of 709 consecutive RARP cases (stratified by PW of < 50, 50-70, > 70 g), PW was observed to be an independent predictor in multivariate-logistic regression analysis, of both ECE (20%, 15% and 9%, $p = 0.01$) and PSM (25%, 14% and 7%, $p > 0.01$), respectively. The authors conclude that PW should be considered when counseling patients for RARP, especially when bilateral interfascial nerve preservation is desired.

The current authors further support this inverse relationship by demonstrating increased ECE ($p = 0.04$) and PSM ($p < 0.01$) rates in men with smaller PW. Similar perioperative outcomes (blood loss, hospital stay, complications) were also observed in this large extraperitoneal RARP series. This paper is meaningful insofar that it helps reaffirm the protective oncological impact of large prostate size. Being one of the largest extraperitoneal RARP series, the authors should be commended on their excellent oncological outcomes supporting that the extraperitoneal approach (often considered more difficult with a more restricted working space) can produce comparable outcomes to other large transperitoneal RARP series.

References

1. Yong DZ, Tsivian M, Zilberman DE, Ferrandino MN, Mouraviev V, Albala DM. Predictors of prolonged operative time during robot-assisted laparoscopic radical prostatectomy. *BJU Int* 2010.

July 26. [Epub ahead of print]

2. Msezane LP, Gofrit ON, Lin S, Shalhav AL, Zagaja GP, Zorn KC. Prostate weight: an independent predictor for positive surgical margins during robotic-assisted laparoscopic radical prostatectomy. *Can J Urol* 2007;14(5):3697-3701.
3. Zorn KC, Orvieto MA, Mikhail AA et al. Effect of prostate weight on operative and postoperative outcomes of robotic-assisted laparoscopic prostatectomy. *Urology* 2007;69(2):300-305

Kevin C. Zorn, MD, FRCSC, FACS
Assistant Professor
Director of Robotic Surgery
University of Montreal
Montreal, Quebec Canada