

THINK OUTSIDE THE BOX: EXTRAPERITONEAL ROBOTIC ASSISTED RADICAL PROSTATECTOMY (RALP), CHALLENGES, SOLUTIONS AND BENEFITS

H.M. Alnajjar, S. Mukhtar, R. Issa, K. Ghani, M.J. Perry,

C.J. Anderson

St George's Healthcare NHS Trust, London, UK

Objectives: Extraperitoneal approach advantages to laparoscopic prostatectomy are well described. We evaluated the feasibility of performing RALP via this approach. The technical challenges and adaptations required to overcome them are reported.

Methods: Since changing to an extraperitoneal approach for RALP we performed 50 prostatectomies. We prospectively recorded console time, estimated blood loss, inpatient stay, complications and surgical margin status. We report the specific difficulties, risks of this approach and steps taken to manage them. Prospective comparison was made with the same spectrum in our last 50 consecutive transperitoneal RALPs. All these procedures were performed by the same surgeon.

Results: The extraperitoneal approach requires development of Retzius' space by insufflation and Laparoscopic dissection of the lateral extensions of this area. Port positions are more caudad. Cranial digital stripping of the peritoneum is required to place the sucker port. Caution is required to avoid injury to inferior epigastric vessels. The bagged prostate specimen is lodged adjacent to the lateral assistant port during the vesico-urethral anastomosis.

Console time was significantly shorter with extraperitoneal approach (mean \pm SEM: 149.9 \pm 5.0 vs. 205.5 \pm 9.4 min) $p < 0.0001$. Hospital stay was also shorter with the extraperitoneal approach (mean \pm SEM: 2.06 \pm 0.21 vs. 3.52 \pm 0.28 days) $p < 0.0001$. Percentage discharged on day 1 postoperatively was higher with extaperitoneal approach. No significant difference was found in intraoperative blood loss, positive surgical margins and complications.

Conclusion: Despite the perceived difficulty with the extraperitoneal space in the literature we demonstrated advantages in surgical times, hospital stay and equivalence in positive margins, blood loss and complications. Port placement and extraperitoneal space creation is challenging but if done adequately there are no problems with movement of robotic arms and technical aspects of surgery including lymph node dissection.