

PROSTATE CANCER

Robotic debate dampened by long-term data?

Landmark long-term follow-up data for robot-assisted radical prostatectomy have been published in *European Urology*. The authors of the paper—led by Mani Menon and Jesse Sammon of the Vattikuti Urology Institute in Detroit—conclude that the robotic procedure “confers effective 5-year biochemical control.”

The ever-increasing number of men being diagnosed with low-risk prostate cancer in the PSA era is driving demand for management strategies that are less invasive than the gold standard of open radical prostatectomy. Interest in robotic surgery has exploded. Some clinicians are concerned that the combination of patient demand and aggressive marketing has led to enthusiasm for robot-assisted prostatectomy that is unwarranted in light of the paucity of high-quality outcomes data. A new reference study goes some way to justifying the enthusiasm.

Menon and colleagues followed almost 1,400 men with moderately aggressive localized disease whose prostate was removed robotically between 2001 and 2005. Rates of biochemical-recurrence-free survival (defined as PSA remaining

below 0.2 ng/ml) were 91% at 3 years, 87% at 5 years, and 81% at 7 years. These compare favorably to the well-established results of traditional open procedures.

“I personally expected nothing different ... as I have been convinced for awhile now that [robotic prostatectomy] will progressively become the most common treatment modality for prostate cancer worldwide.” So states Francesco Montorsi from Vita Salute San Raffaele University, Milan, in an Editorial that accompanies Menon *et al.*'s paper. Montorsi goes on to opine the underutilization of pelvic lymphadenectomy during the robot-assisted procedure.

Surgeon experience is probably a key factor influencing the likelihood of lymphadenectomy. Indeed, Costas Lallas and co-workers from the Kimmel Cancer Center in Philadelphia have found that surgeons in the early stages of robotic training are much less likely to select patients who require lymph node excision.

The Kimmel team reviewed data collected from more than 1,000 men who had undergone prostatectomy at their institution. Almost a quarter were excluded from the analysis on the basis that bilateral pelvic lymph node dissection had not been performed. Most of those excluded had been treated during the initial stages of establishment of the Kimmel robotic program.

Subsequent study of data from the 800-plus patients whose surgery (473 robot-assisted and 343 open retropubic) had incorporated bilateral lymphadenectomy generated a novel result—a significantly higher mean lymph node yield in the robotic group (7 versus 6).

“Pelvic lymph node dissection ... is not compromised across [different surgical] techniques”, asserts Lallas. “It remains an important diagnostic—and possibly therapeutic—adjunct to radical prostatectomy [regardless of the surgical approach used].”

Lymphadenectomy rates were one of the parameters assessed during a study

of two modes of robotic training. David Thiel and colleagues compared the safety and perioperative outcomes of the first 30 robot-assisted prostatectomies performed by surgeons trained in one of two ways; either by completing a 1-year robotic fellowship, or by the more commonly followed path of incorporating the robotic procedure into existing practice after attaining considerable experience with open radical prostatectomy.

During their first 30 robotic procedures, trainees in the latter group—who had performed at least 1,000 open surgeries—were less likely to excise pelvic lymph nodes than their fellowship-trained counterparts, and were more likely to convert to open surgery. The first 30 men treated by fellowship-trained surgeons were less likely to have positive surgical margins, to experience prolonged leakage from their catheters, or to fail to attain PSA nadir. The perioperative safety profile of the experienced open surgeons improved markedly during the period in which they completed their next 30 robotic prostatectomies.

Thiel and his co-workers are following up this interesting investigation of the robotic learning curve with a report on longer term cancer control and functional outcomes for 100 patients in each group. “The surgeries are complete, and we are now waiting for 1-year quality of life, continence and erection-return data.”

Suzanne J. Farley

Original articles Menon, M. *et al.* Biochemical recurrence following robot-assisted radical prostatectomy: analysis of 1384 patients with a median 5-year follow-up. *Eur. Urol.* doi:10.1016/j.eururo.2010.09.010 | Lallas, C. D. *et al.* Comparison of lymph node yield in robot-assisted laparoscopic prostatectomy with that in open radical retropubic prostatectomy. *BJU Int.* doi:10.1111/j.1464-410X.2010.09621.x | Leroy, T. J. *et al.* Safety and peri-operative outcomes during learning curve of robot-assisted laparoscopic prostatectomy: a multi-institutional study of fellowship-trained robotic surgeons versus experienced open radical prostatectomy surgeons incorporating robot-assisted laparoscopic prostatectomy. *J. Endourol.* doi:10.1089/end.2009.0657



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