



Editorial – referring to the article published on pp. 785–793 of this issue

Unhappy Patients: Musings of Two Surgical Nihilists

Mani Menon*, Mahendra Bhandari

Vattikuti Urology Institute, Henry Ford Health System, Departments of Urology, Case Western University School of Medicine, New York University School of Medicine and University of Toledo School of Medicine, United States

We have a confession to make. We are nihilists—at least as far as treating prostate cancer goes. We feel that far too many patients with prostate cancer are treated more definitively than need to be to save the occasional patient from dying. In our own studies at Henry Ford Hospital, the cancer mortality for patients undergoing watchful waiting from 1980 to 1997 was 19.4%, and for those undergoing radical prostatectomy, the corresponding rate was 3.5%. This was for all comers, irrespective of Gleason grade, preoperative prostate-specific antigen (PSA), pathological stage, or margin status [1]. If these results are representative, in the 21st century, one needs to perform six radical prostatectomies to prevent one death from prostate cancer. Stated otherwise, five of six radical prostatectomies are either unnecessary or ineffective.

At what price is this cure provided? While individual master surgeons have better results, the average patient undergoing open radical prostatectomy loses a third of his blood volume [2], has a 20% chance of postoperative urinary problems [3], and has up to a 40% chance of impaired erectile function [3,4]. It was to improve these outcomes that we embarked upon developing techniques of robotic prostatectomy in 2000. From its humble—and controversial—beginnings, the procedure has exploded, and more than two-thirds of patients undergoing surgery for prostate cancer in the United States choose the robotic option. The rapidity of this expansion has rivaled that of the Internet and far exceeded that of laparoscopic

nephrectomy, cell phones, or the personal computer [5]!

Some opinion leaders have decried the expansion of robotic surgery in the United States, even calling the way it was introduced “a black mark on urology” [6] and attributing this growth to venal marketing techniques. They do not deny the merits of robotic surgery but feel that the hype does not match reality. There is some truth to these observations: Robotic surgeons have increasingly created Web sites, and the information presented there can be uncontrolled, unedited, and unproven. However, we have greater faith in patients’ ability to appreciate quality and distinguish hype from reality. In the United States, patients are voting with their feet, and robotic centers of excellence have sprung up in unlikely locations. As Yogi Berra once said, “If people don’t want to come to the ballpark, nobody can stop them.”

What are the real benefits of robotic surgery? How do we measure them? Ideally, measurement is done through a randomized clinical trial involving multiple institutions, well-defined patient demographics, structured follow-up, and predetermined outcome measurements. This has not happened to date, and we have some questions about whether such a study could ever be done or if it would unveil the ultimate truth. Prevailing opinion suggests that the surgeon is an independent variable in determining the outcomes of prostatectomy. Some surgeons are just better than others in performing this operation. This should not come as a surprise; some golfers are

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* Corresponding author. Case School of Medicine, The Raj and Padma Vattikuti Distinguished Chair and Director, Vattikuti Urology Institute, Henry Ford Health System, 2799 West Grand Boulevard, Detroit, MI 48202, United States. Tel. +1 313 916 2066; Fax: +1 313 916 1462. E-mail address: ashriva1@hfhs.org (M. Menon).

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better than others at golf, some tennis players at tennis, and some musicians at music. Why would this not be true of surgeons too? If that is the case, can one fully adjust for this skill in a randomized trial? We mean really, really adjust. (There goes the nihilist in us again.)

The Duke study reported in this journal is a modest step in separating the hype from the reality [7]. The Duke investigators simply asked the patients what they thought of their surgery. The results were somewhat surprising. Overall, 84% of patients were satisfied with their results, despite urinary domain scores of around 80% and sexual domain scores as low as 30% (of a possible 100%). Patients undergoing robotic surgery had similar functional outcomes to those undergoing open surgery but had a significantly lower rate of requiring secondary treatment (7.8% vs 16.9%); yet, these patients were more likely to be dissatisfied with their results (19.9% vs 12.9%). The Duke investigators postulate that patients who chose the “innovative” robotic procedure most likely had higher expectations than those undergoing traditional surgery, hence, the greater regret rate.

Are there other possible explanations? First, the Duke surgeons were far more experienced with open prostatectomy than robotic prostatectomy. Open prostatectomy has been around since the early 1950s, whereas robotics was born in 2001. During the study period, Duke surgeons performed 966 open and 361 robotic cases. Presumably, the study included the “learning period” for robotic, but not for open, prostatectomy, yet functional results were similar. Perhaps, against conventional wisdom, what this implies is that the learning curve for robotic prostatectomy is lower than that for conventional prostatectomy.

Second, the major correlate for patient satisfaction in the Duke study was the urinary domain, which tends to improve with longer follow-up. In this study, follow-up was 70% longer for the open cases. It is likely that with further follow-up, urinary symptoms would be fewer in patients undergoing robotic surgery; however, the cross-sectional nature of the study precludes longitudinal evaluation of outcomes.

Dissatisfaction with treatment is related to complex socioeconomic factors. Education, affect, psychosocial functioning, and use of emotion regulation strategies are but a few of these [8]. The Duke study was not designed to tease out these characteristics but instead used part of a questionnaire previously used to measure patient regrets about treatment for metastatic prostate cancer [9].

Logic dictates that true expression of regret requires experience of both treatment options; however, patients cannot undergo both traditional and robotic prostatectomy in a crossover fashion. Perhaps patients who reported regret on robotic prostatectomy just have regretful personalities. If so, they may have had greater regret had they undergone open prostatectomy because the secondary treatment rate was higher with traditional surgery. The available data do not allow a post hoc analysis of these issues.

In summary, patients undergoing robotic prostatectomy at Duke achieved similar functional outcomes to people undergoing conventional prostatectomy and had lower secondary treatment rates, even though the open surgeons were much more experienced than their robotic counterparts and had followed their patients longer. Despite this, robotic patients were more likely to be dissatisfied with their results than patients undergoing traditional prostatectomy. While it is likely that the robotic results will improve with greater experience and longer follow-up, we are less sanguine that this will result in greater patient satisfaction. Patients undergoing robotic surgery may have higher expectations than patients undergoing traditional surgery, and it is plausible that the hype around robotics has fueled this, at least partially. Alternately, these patients may have personality types or socioeconomic characteristics that render them prone to regretting their decisions.

The Duke surgeons suggest that individual urologists should pay specific attention to their own outcome data—surely sage advice. At our institution, this is what we try to do. When we counsel patients, we emphasize the minimally invasive nature of robotics and its impact on decreasing blood loss and medical complications. These findings have been confirmed by others [10] but were not addressed in the Duke study. We detail our own published outcomes but eschew injudicious comparisons to other surgeons' results. Parenthetically, this laid-back approach causes us to “lose” a few patients, but the ones who do stay end up being quite satisfied. In our own series, while only 70% of patients achieved the trifecta of perfect continence, no erectile dysfunction, and no biochemical recurrence at 15 mo of follow-up, 91% expressed no regrets or dissatisfaction with robotic prostatectomy. As Montie wisely opines, we do patients a disservice when reality falls victim to hype.

Conflicts of interest: The authors have nothing to disclose.

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