



Editorial

A Plea for Integrating Laparoscopy and Robotic Surgery in Everyday Urology: The Rules of the Game

Francesco Montorsi*

Department of Urology, Università Vita Salute San Raffaele, Via Olgettina 60, 20132 Milan, Italy

In 1992, my senior attending and friend Giorgio Guazzoni and myself were exposed to laparoscopy for the first time and soon became convinced that this revolutionary technique would change the treatment of many urologic diseases. Our mentor, Prof. Patrizio Rigatti, outstanding open surgeon with an unsurpassed intuition for future therapeutic changes, suggested that we concentrate our efforts in the field of surgical adrenal disease [1], and there is no doubt today that laparoscopic adrenalectomy is the standard of care for the vast majority of hyperfunctioning benign adrenal tumours [2].

Laparoscopy has been progressively gaining acceptance in the urologic arena thanks to the dedication and enthusiasm of several pioneers, most of whom are European. Richard Gaston, Bertrand Guillonneau, and Guy Vallencien elegantly showed the world how to radically excise a prostate without opening the patient's abdomen [3–5]. At that time it was both surprising and impressive to see so many urologists and patients from all over the world flying to Europe to learn the technique of laparoscopic radical prostatectomy or to be operated on with this procedure, respectively.

Interestingly, it soon became evident that laparoscopy had become a subspecialty of urology, with dedicated scientific societies and dedicated abstract sessions at scientific meetings. Almost all scientific journals, including *European Urology*, implemented new sections devoted to laparoscopy and expert laparoscopists were added to the editorial boards to

serve in the review process of manuscripts dealing with this topic.

More recently, the introduction of robotics in the field of urology has caused a second earthquake, especially in the United States. The pioneering work of Mani Menon [6] attracted the attention of a very large number of urologists worldwide. When I visited the Vattikuti Institute of Urology in Detroit in January 2006, I was impressed by the fantastic and efficient organisation of the daily work of the robotic theatres: six robotic-assisted radical prostatectomies per day, three times a week! We all understand that robotic-assisted surgery is nothing else than laparoscopic surgery revisited with the help of highly sophisticated technology. The hypothesis that the robot can facilitate the learning phase of this new technique has been attracting the interest of a large number of open surgeons, many of whom never had any prior laparoscopic experience [7]!

I think that we have reached a point in our profession when it is time to abolish the journal's section devoted to laparoscopy and robotic surgery and to include accepted articles in the respective disease sections. In this issue of the Platinum Journal, you will see the first example of this new strategy. It does not make any sense to keep making a distinction between articles based on open surgical procedures as compared to those using laparoscopic and robotic techniques. Every practising urologist with a special interest in one or more urologic fields should keep himself updated on the results of all available techniques and should be able

* Tel. +39 02 2643 7286; Fax: +39 02 2643 7298.

E-mail address: montorsi.francesco@hsr.it.

to critically analyse the advantages and limitations of each approach.

Although this may seem to be an insignificant change, I believe differently and please allow me to be a little bit provocative while explaining to you my position.

Are there new rules that we all need to accept and respect? I believe that the answer is obvious and a straight "yes." At the same time I believe that observing these rules will be one of the major challenges that we as urologists will be obliged to face in the next few years.

1. We should be able to recognise that very often the surgeon himself is the principal cause of the success or failure of an operation and not the technique used. When reporting on any open versus laparoscopic versus robotic-assisted series, results should be analysed also taking into account the surgeon as a possible independent predicting factor [8,9].
2. Every surgeon involved in clinical research should realise that the era of retrospective studies is definitively over. Answers to crucial questions can only come from prospective studies. Whenever possible, a "prospective randomised trial" design should be used and multi-institutional studies should always be organised [10]. Both academic and nonacademic departments must invest money in developing state-of-the-art databases run by professionals to gather pre-operative, perioperative, and postoperative data from patients undergoing specific procedures. Web-based systems aimed at maintaining a close follow-up with patients are easy to develop and their maintenance is cheap. Raw data should be available for possible assessment by reviewers and editors when the final manuscript describing the results of a study is eventually submitted for publication in a journal with a high impact factor, such as the Platinum Journal.
3. Surgeons performing open, laparoscopic, and robotic procedures must all be humble enough to stop waving their flags when they do not have robust data in their hands. When we review manuscripts, we still note too many conclusive remarks that are not evidence based but that only reflect the intimate convictions of the authors. To my knowledge only one prospective, randomised study comparing laparoscopic versus open radical prostatectomy performed by the same surgeon has been published [11]; thus, we are like babies taking their first steps.
4. Open surgery taught one lesson that I think is accepted by all of us: experience in the operating

theatre does count. The case of open nerve-sparing prostatectomy is an evidence-based one: pioneers like (in alphabetical order) Hartwig Huland, Peter Scardino, and Patrick Walsh clearly showed that their oncologic and functional results kept improving after the first 2000 cases. These individuals devoted their entire professional lives following the completion of their residencies to the development of one single surgical procedure, showing that if one really wants to become an undisputed leader, he has to invest all his energy in one specific sector of our field. If this holds true, there is no reason why the same should not apply to surgeons performing laparoscopic and robotic-assisted procedures. However, I have not seen this happen yet and this is in clear contrast with some triumphant declarations of superiority coming from well-known laparoscopic or robotic surgeons. I am convinced that many overwhelmingly positive articles written in favour of either laparoscopic or robotic-assisted surgery have been done in total good faith by the authors; however, I am nevertheless convinced that they were not able to realise that their statements were just not supported by evidence-based data! Let's not forget that we are still missing large-scale, prospective, randomised trials comparing laparoscopic versus robotic versus open radical prostatectomy or laparoscopic versus open radical cystectomy or laparoscopic versus open partial nephrectomy or laparoscopic versus robotic versus open pyeloplasty. I look forward to seeing young, motivated, and talented urologists devoting all their enthusiasm and energy to becoming masters in one single operation such as laparoscopic versus robotic-assisted radical prostatectomy or partial/radical nephrectomy or radical cystectomy. There is every reason to expect that results will inevitably improve over time.

European Urology aims to be the referral point for those who would like to continually update their scientific knowledge, which is the reason why all the editors and reviewers have been striving to select for you only the very best submissions. We believe that the editorial change that you will notice from this issue on will contribute to further improving the scientific profile of "your" Platinum Journal.

References

- [1] Guazzoni G, Montorsi F, Bergamaschi F, et al. Effectiveness and safety of laparoscopic adrenalectomy. *J Urol* 1994;152:1375-8.

-
- [2] Zacharias M, Haese A, Jurczok A, Stolzenburg J-U, Fornara P. Transperitoneal laparoscopic adrenalectomy: outline of the preoperative management, surgical approach, and outcome. *Eur Urol* 2006;49:448–59.
- [3] Guillonnet B. To demonstrate the benefits of laparoscopic radical prostatectomy? *Eur Urol* 2006;50:1160–1.
- [4] Touijer K, Guillonnet B. Laparoscopic radical prostatectomy: a critical analysis of surgical quality. *Eur Urol* 2006;49:625–32.
- [5] Curto F, Benijts J, Pansadoro A, et al. Nerve sparing laparoscopic radical prostatectomy: our technique. *Eur Urol* 2006;49:344–52.
- [6] Saveria AT, Kaul S, Badani K, Stark AT, Shah NL, Menon M. Robotic radical prostatectomy with the “Veil of Aphrodite” technique: histologic evidence of enhanced nerve sparing. *Eur Urol* 2006;49:1065–74.
- [7] Rassweiler J, Hruza M, Teber D, Su L-M. Laparoscopic and robotic assisted radical prostatectomy—critical analysis of the results. *Eur Urol* 2006;49:612–24.
- [8] Bianco FJ, Riedel ER, Begg CB, Kattan MW, Scardino PT. Variations among high volume surgeons in the rate of complications after radical prostatectomy: further evidence that technique matters. *J Urol* 2005;173:2099–103.
- [9] Guillonnet B. Should we consider testing for skill in surgery? *Eur Urol* 2005;47:480–1.
- [10] Boccon-Gibod L. Radical prostatectomy: open? Laparoscopic? Robotic? *Eur Urol* 2006;49:598–9.
- [11] Guazzoni G, Cestari A, Naspro R, et al. Intra- and peri-operative outcomes comparing radical retropubic and laparoscopic radical prostatectomy: results from a prospective, randomised, single-surgeon study. *Eur Urol* 2006;50:98–104.