



## Words of Wisdom

### Re: A Sealed Laparoscopic Nephroureterectomy: A New Technique

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Eur Urol 2007;52:1015–9.

#### Experts' summary:

The authors describe a new, purely laparoscopic technique in the surgical treatment of urothelial cancer of upper urinary tract, designed to avoid the disadvantages correlated to a transurethral bladder cuff excision and open/laparoscopic distal ureterectomy using the EndoGIA. After performing a standard transperitoneal laparoscopic nephrectomy, the ureter is dissected to the ureterovesical junction, and a bladder cuff is excised using a 10-mm LigaSure Atlas.

Thirteen patients underwent this surgical technique. No positive margins were found in any patients. Pathologic stage included T1 in three patients, T2 in three patients, and T3 in five; high-grade tumour was found in six patients and low-grade in five; three patients presented a concomitant carcinoma in situ as well.

The follow up was 23 mo. There was no evidence of local recurrence. Two patients had remote recurrence from the bladder cuff scar.

#### Experts' comments:

The discussion about the safety and validity of laparoscopy for urological tumours has gone on for years, particularly concerning the oncologic outcomes and the tumour seeding rates in urological laparoscopy.

The first laparoscopic nephroureterectomy was performed in 1991 by Clayman et al [1] on an 82-year-old-male with low-grade transitional cell carcinoma of the upper urinary tract. Since then, it has been questioned whether laparoscopy can be applied with oncologic safety in the surgical treat-

ment of urothelial cancer of the upper urinary tract. During the 1990s, the still scanty experience with this new technique and the uncritical indication to laparoscopic nephroureterectomy for transitional cell carcinoma (TCC) was responsible for a higher rate of port-site metastases and bladder recurrences. However, with improvements in surgical technique over the years, the incidence of port-site metastases and local recurrence after laparoscopic nephroureterectomy for urothelial cancer of the upper urinary tract has been reduced [2–5].

The technique described in this paper is interesting. But the only fundamental difference between the procedure described and “traditional” laparoscopic nephroureterectomy is the use of LigaSure instead of EndoGIA. No data have demonstrated an improvement of the oncologic outcomes using this new technique. What seems to be fundamental in this operation is the skill of the surgeon, and above all his laparoscopic experience, rather than an instrument. Moreover, large series studies with long follow up are necessary to affirm laparoscopic radical nephroureterectomy as the new standard of care in surgical therapy for nonadvanced urothelial cancer of the upper urinary tract.

**Conflicts of interest:** The authors have nothing to disclose.

#### References

- [1] Claymann RV, Kavoussi LR, Figenschau RS, et al. Laparoscopic nephroureterectomy: initial case report. *J Laparosc Surg* 1991;1:343–9.
- [2] Fornara P, Zacharias M, Wagner S. Port-site metastases: fact or fiction? *Urol Int* 2003;71:136–42.
- [3] Schatteman P, Chatzopoulos C, Assenmacher C, et al. Laparoscopic nephroureterectomy for upper urinary tract transitional cell carcinoma: results of a Belgian retrospective multicentre survey. *Eur Urol* 2007;51:1633–8.

- [4] Muntener M, Nielsen EM, Romero RF, et al. Long-term oncologic outcome after laparoscopic radical nephroureterectomy for upper tract transitional cell carcinoma. *Eur Urol* 2007;51:1639–44.
- [5] Matin SF, Gill IS. Recurrence and survival following laparoscopic radical nephroureterectomy with various forms of bladder cuff control. *J Urol* 2005;173:395–400.

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### Re: Obesity-Related Plasma Hemodilution and PSA Concentration Among Men with Prostate Cancer

Bañez LL, Hamilton RJ, Partin AW, Vollmer RT, Sun L, Rodriguez C, Wang Y, Terris MK, Aronson WJ, Presti JC Jr, Kane CJ, Amling GL, Moul JW, Freedland SJ

*JAMA* 2007;298:2275–80.

#### Expert's summary:

The article entitled Obesity-Related Plasma Hemodilution and PSA Concentration among Men with Prostate Cancer, published in the *Journal of the American Medical Association* by Bañez et al, examined associations between serum prostate-specific antigen (PSA) and plasma volume across body mass index (BMI) categories. In this multicenter study with a total population approaching 14 000 men that includes the Duke Prostate Center, Johns Hopkins, and Veterans Affairs hospitals that comprise the Shared Equal Access Regional Cancer Hospital (SEARCH) database, the authors found that increased BMI was associated with greater plasma volume and lower PSA levels. However, the amount of circulating PSA or PSA mass did not significantly change across BMI categories. This finding led the authors to conclude that lower serum PSA levels observed in obese men undergoing radical prostatectomy is largely due to hemodilution.

#### Expert's comments:

The widespread use of the PSA test has led to numerous groundbreaking investigations aimed at improving the PSA test for accurate detection of prostate cancer. Previous studies have pointed out the value of adjusting PSA results based on age [1] and race [2]. In the current article, the authors advocate adjustment of PSA by BMI. It was noted in the study that men with BMI  $\geq 35$  kg/m<sup>2</sup> had PSA levels 11–21% lower compared to normal-weight men. The magnitude of this discrepancy emphasizes the disadvantage of assigning cutoff points for PSA testing in deciding whether or not a patient needs to undergo prostate biopsy without regard for obe-

sity-related hemodilution. If their findings hold true in prospective studies, urologists may have to assign lower cutoff levels for obese men based on BMI or other methods to estimate plasma volume to account for hemodilution.

This study could provide an explanation to epidemiologic observations that obese men with prostate cancer present with more aggressive cancers and are at higher risk of cancer-specific mortality relative to normal-weight men [3]. Artificially lowered PSA measurements in obese men could lead to significant delays in initiating a diagnostic biopsy and, consequently, significant delays in definitive management. Granted that this phenomenon would have greater impact in the United States, where prevalence rates of obesity have been observed to be on the rise, deleterious effects of hemodilution could also become significant, particularly in urbanized regions of Europe where similar trends towards a progressive increase in obesity are being recognized [4]. Furthermore, as PSA screening becomes more commonplace in European countries, the bias of PSA screening against obese men brought about by hemodilution will likely become more evident [5].

**Conflicts of interest:** The author has nothing to disclose.

#### References

- [1] Oesterling JE, et al. Serum prostate-specific antigen in a community-based population of healthy men. Establishment of age-specific reference ranges. *JAMA* 1993;270:860–4.
- [2] Moul JW, et al. Prostate-specific antigen values at the time of prostate cancer diagnosis in African-American men. *JAMA* 1995;274:1277–81.
- [3] Calle EE, et al. Overweight, obesity, and mortality from cancer in a prospectively studied cohort of U.S. adults. *N Engl J Med* 2003;348:1625–38.