

First laparoscopic cystoprostatectomy in combination with prepubic urethrectomy

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INTRODUCTION: Radical cystectomy with extended pelvic lymphadenectomy (PLND) is the 'gold standard' for managing muscle-invasive bladder cancer. In case the tumor invades the prostate in men, or the bladder neck in women, and in case the frozen section of the distal urethra margin is positive, urethrectomy is mandatory.

Laparoscopic cyst(oprostat)ectomy (LRC) has many advantages: reduced fluid loss, shorter postoperative recovery time, reduced postoperative pain, better cosmetic results and quicker return to bowel functions. The less invasive technique for urethrectomy seems to be the prepubic approach.

MATERIALS AND METHODS: We present a 66 year old patient who suffered from a squamous cell carcinoma of the bladder, with invasion of the urethra prostatica. The tumor was staged as cT4a cN0 cM0 poorly differentiated, squamous cell carcinoma. We combined both minimal invasive techniques, LRC and PLND with prepubic urethrectomy and Bricker ileal conduit. The prepubic technique was performed as described by Van Poppel through a mini-Pfannenstiel incision.

RESULTS: The operation time was: LRC 340 min, Bricker derivation 90 min, prepubic urethrectomy 40 min. Blood loss was 500mL. The patient stayed 1 night on medium care. Time to oral intake was 3 days. The patient was discharged at day 10. We encountered no immediate or late postoperative problems.

CONCLUSION: A combination of both minimal invasive techniques, LRC with mini-laparotomy and Bricker ileal conduit, together with a prepubic urethrectomy, is the less invasive surgical technique available at the moment for invasive urothelial cell cancer, when urethrectomy is mandatory. Thanks to this combination morbidity and complication rate is reduced, without altering oncological and functional results.

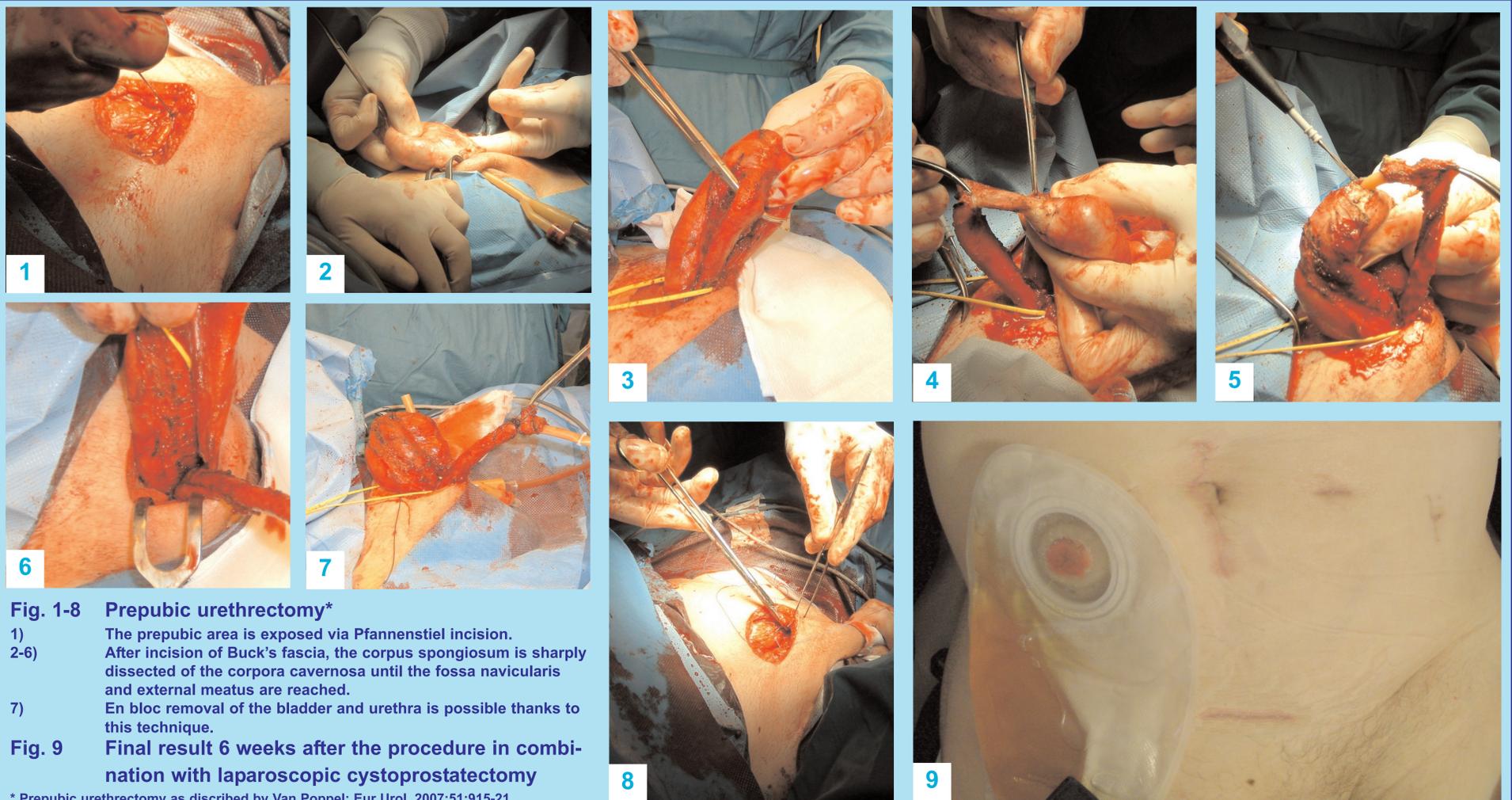


Fig. 1-8 Prepubic urethrectomy*

- 1) The prepubic area is exposed via Pfannenstiel incision.
- 2-6) After incision of Buck's fascia, the corpus spongiosum is sharply dissected of the corpora cavernosa until the fossa navicularis and external meatus are reached.
- 7) En bloc removal of the bladder and urethra is possible thanks to this technique.

Fig. 9 Final result 6 weeks after the procedure in combination with laparoscopic cystoprostatectomy

* Prepubic urethrectomy as described by Van Poppel: Eur Urol. 2007;51:915-21.

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Urethrectomy is recommended if there are positive margins at the level of urethra dissection (frozen section in case of CIS), positive margins anywhere on the bladder specimen (in both sexes), if the primary tumor is located at the bladder neck or in the urethra (in women), or if tumor extensively infiltrates the prostate. Preservation of the urethra is reasonable if margins are negative. If no bladder substitution is attached the urethra must be checked regularly.

	mean	median
Operation time (min)	450	430
Blood loss (mL)	970	800
Hospitalisation (days)	14	13
Medium care (nights)	1	1

Table 1: Laparoscopic Cyst(oprostat)ectomy (+ hysterectomy + ovariectomy) + PLND + Bricker via mini-laparotomy. First series in our centre.

