

affiliations relevant to the subject matter or materials discussed in the manuscript (eg, employment/ affiliation, grants or funding, consultancies, honoraria, stock ownership or options, expert testimony, royalties, or patents filed, received, or pending), are the following: None.

**Funding/Support and role of the sponsor:** None.

## References

- [1] Nitti VW, Blaivis JG. Urinary incontinence, epidemiology, patho-physiology, evaluation and management overview. In: Wein AJ, Kavoussi LR, Novick AC, et al. editors. *Campbell-Walsh Urology*. ed. 9 Saunders Elsevier; 2007. p. 2046–78.
- [2] Stöhrer M, Castro-Diaz, Chartier-Kastler E, et al. Guidelines on neurologic lower urinary tract dysfunction. In *European Association of Urology Guidelines*; 2007.
- [3] Smith RB, Van Cangh P, Skinner DG, et al. Augmentation enterocystoplasty: critical review. *J Urol* 1977;118:35–9.
- [4] Sidi AA, Becher EF, Reddy PK, et al. Augmentation enterocystoplasty for the management of voiding dysfunction in spinal cord injuries patients. *J Urol* 1990;143:83–8.
- [5] Nasrallah PF, Aliabadi HA. Bladder augmentation in patients with neurogenic bladder and vesico-ureteral reflux. *J Urol* 1991;146:563–6.
- [6] Luangkhot R, Peng BCH, Blaivis JG. Ileocecocystoplasty for the management of refractory neurogenic bladder: Surgical, technique and urodynamic findings. *J Urol* 1991;146:1340–4.
- [7] Quek ML, Ginsberg DA. Long-term urodynamic follow-up of bladder augmentation for neurogenic bladder. *J Urol* 2003;169:195–8.
- [8] Khastgir J, Hamid R, Arya M, Shah N, Shah PJR. Surgical and patient reported outcomes of “clam” augmentation ileocystoplasty in spinal cord injured patients. *Euro Urol* 2003;43:263–9.
- [9] Docimo SG, Moore RG, Adams J, et al. Laparoscopic bladder augmentation using stomach. *Urology* 1995;46:565–9.
- [10] Gill IS, Rackley RR, Meraney AM, et al. Laparoscopic enterocystoplasty. *Urology* 2000;55:178–81.
- [11] Calvano CJ, Moran ME, Parekh A, et al. Laparoscopic augmentation cystoplasty using the novel biomaterial Surgisis: small intestinal submucosa. *J Endourol* 2000;14:213–7.
- [12] Portis AJ, Elbahnasy AM, Shalhav AL, et al. Laparoscopic augmentation cystoplasty with different biodegradable grafts in an animal model. *J Urol* 2000;164:1405–11.
- [13] Liftshitz DA, Beck SD, Barret A, et al. Laparoscopic transverse hemicystectomy with ileocystoplasty in a porcine model. *J Endourol* 2001;15:199–203.
- [14] Paterson RF, Liftshitz DA, Beck SD, et al. Multilayered small intestinal submucosa is inferior to autologous bowel for laparoscopic bladder augmentation. *J Urol* 2002;168:2253–7.
- [15] Desai MM, Gill IS, Goel M, et al. Ureteral tissue balloon expansion for laparoscopic bladder augmentation: survival study. *J Endourol* 2003;17:283–93.
- [16] Siqueria Jr TM, Paterson RF, Kuo RL, et al. Laparoscopic ileocystoplasty and continent ileovesicostomy in a porcine model. *J Endourol* 2003;17:301–5.
- [17] Wang DS, Anderson DA, Fretz PC, et al. Laparoscopic augmentation cystoplasty: a comparison between native ileum and small intestinal submucosa in the porcine model. *BJU Int* 2007;99:628–31.
- [18] Lavoura Jr N, D’Ancona CA, Borges GM, et al. Laparoscopic ileocystoplasty: an experimental study in pigs. *J Endourol* 2007;21:218–22.
- [19] Meng MV, Anwar HP, Elliott SP, et al. Pure laparoscopic enterocystoplasty. *J Urol* 2002;167:1386.
- [20] Elliot SP, Meng MV, Anwar HP, et al. Complete laparoscopic ileal cystoplasty. *Urol* 2002;59:939–43.
- [21] Shadpour P, Simforoosh N, Magsudi R, et al. Totally laparoscopic combined freehand ileocystoplasty and Malone procedures. *J Endourol* 2005;19:471–5.
- [22] Mc Guire EJ, Woodside JR, Borden TA, et al. Prognostic value of urodynamic testing in myelodysplastic patients. *J Urol* 1981;126:205–9.
- [23] López Pereira L, Martinez Urrutia MJ, Lobato Romera R, et al. Should we treat vesicoureteral reflux in patients who simultaneously undergo bladder augmentation for neurogenic bladder? *J Urol* 2001;165:2259–61.

### Editorial Comment on: Laparoscopic Augmentation Ileocystoplasty: Results and Outcome

Wael Y. Khoder, Armin J. Becker, Christian G. Stief  
 Department of Urology,  
 University Hospital Munich–Grosshadern,  
 Ludwig-Maximilians-University Munich, Munich,  
 Germany  
[wael.khoder@med.uni-muenchen.de](mailto:wael.khoder@med.uni-muenchen.de)

Laparoscopy is a fundamental part of the current armamentarium of urology, achieving similar results to open surgery in centres with laparoscopic expertise. It has been developed and

established with the view that similar results can be achieved with less traumatization, especially as far as systemic stress response is concerned.

It is widely appreciated that large-scale, prospective, randomised trials comparing laparoscopic versus robotic versus open surgery are still missing [1]. Differences in the method of data collection in outcome assessment studies affect the surgical success rates. Therefore, critical documentation of experiences from several institutions, especially analysis of complications, is important for further development of laparoscopic techniques.

Laparoscopic enterocystoplasty has the promise to become a viable alternative to its open counterpart. Process modifications based on the recently published new experimental work [2], surgical details [3], or discussions among experienced colleagues are aiming to improve its outcome.

The authors deserve congratulation for their reasonable prospective study [4]. Regardless of their indications for the procedure, a mean operative time of 202 min is relatively long, considering the use of the hand-assisted procedure which is considered less time-consuming [5]. Otherwise, the follow-up was relatively long with parameters comparable with the published data. We agree with the authors about procedure safety and satisfactory outcome, but such studies can be significantly biased (bias of surgeon, different levels of experience, patients' morbidity). Before/after study of cases performed by the same surgeon might provide more reliable results.

Reports on the patient perspective and symptomatic outcome following enterocystoplasty document good results. Issues such as the individual definition of cure, social acceptability, and effect on self-esteem were discussed [3].

Finally, the future challenge is the complete definition of indications and selection criteria for

this laparoscopic surgery. Future developments such as robotics may enable laparoscopy to become the standard approach to enterocystoplasty.

## References

- [1] Montorsi F. A plea for integrating laparoscopy and robotic surgery in everyday urology: the rules of the game. *Eur Urol* 2007;52:307-9.
- [2] Sievert K-D, Amend B, Stenzl A. Tissue engineering for the lower urinary tract: a review of a state of the art approach. *Eur Urol* 2007;52:1580-9.
- [3] Khastgir J, Hamid R, Arva M, Shah N, Shah PJR. Surgical and patient reported outcomes of 'clam' augmentation ileocystoplasty in spinal cord injured patients. *Eur Urol* 2003;43:263-9.
- [4] El-Feel A, Abdel-Hakim MA, Abouel-Fettouh H, Abdel-Hakim AM. Laparoscopic augmentation ileocystoplasty; results and outcome. *Eur Urol* 2009;55:721-8.
- [5] Gerullis H, Kuemmel C, Popken G. Laparoscopic cystectomy with extracorporeal-assisted urinary diversion: experience with 34 patients. *Eur Urol* 2007;51: 193-8.

DOI: [10.1016/j.eururo.2008.03.103](https://doi.org/10.1016/j.eururo.2008.03.103)

DOI of original article: [10.1016/j.eururo.2008.03.102](https://doi.org/10.1016/j.eururo.2008.03.102)