

Editorial Comment for Sim *et al.*

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ONE OF THE MOST INTRIGUING aspects of urologic practice is the drive our field has toward innovation. Often, these innovations are adapted from other applications or fields, as is the case for the “Y” intracorporeal neobladder from Sim and colleagues. This group took a technique that was vetted in the open experience¹ and adapted it to the robotic approach. Others have reported the feasibility of performing an intracorporeal neobladder, but the majority of these used the more common folded, spherical (e.g., Studer) pouch. Although successful, constructing these neobladders necessitates an exorbitant amount of cumbersome intracorporeal manipulation, and at least in most hands, results in excessive operative times.

There are some operative and functional advantages of the “Y” over the spherical neobladders. The “Y” requires an ileal segment that is up to 20 cm shorter. This likely impacts the patient’s bowel absorptive function minimally, but the shorter bowel segment is easier to manage intracorporeally and takes less time to detubularize and sew. The use of the “double-chimney” configuration has been described in open surgery previously in conjunction with a Hautmann spherical neobladder.² This obviates the need to tunnel the left ureter under or through the sigmoid mesocolon resulting in a shorter remaining segment of left ureter, thus reducing the ischemic strain on the distal ureter. This may help avoid anastomotic stricture.

There is also an oncologic advantage of this design: A shorter retained segment of left ureter reduces the risk of future recurrence, especially in cases of carcinoma *in situ*. In the event of upper tract recurrence, diagnosis may be facilitated with more straightforward access to the lone ureteral anastomosis in each limb, and nephroureterectomy with completion ureterectomy for left-sided tumors would be simpler, avoiding the need to dissect the distal segment from under the mesocolon.

Of course the crucial overriding question on this topic is: “Does cystectomy with intracorporeal neobladder result in added patient benefit over the open approach?” Simply providing evidence of equivalence is insufficient cause to promote this technique. The added cost and the investment in the collective learning curve are too great to promote an equivalent approach. There is mounting evidence of acceptable oncologic results with robotic cystectomy.³ Improving the relative dismal oncologic outcomes for muscle-invasive bladder cancer likely relies more on promoting early cystectomy, the wider use of neoadjuvant chemotherapy, and

innovations in genomic-based personalized therapeutics. Sound surgical technique is crucial, but in experienced hands will only get patients so far.

Therefore, if the marginal benefits resulting from total intracorporeal cystectomy do not lie in the oncologic realm, they must be in patient convalescence, complication, and quality of life advantages. The outcomes from series looking at robot-assisted cystectomy with open urinary diversion are mixed.⁴ As with all robotic procedures, blood loss is significantly diminished, but similar lengths of stay, complication rates, and rates of readmission indicate that this approach is no windfall. Despite the minimally invasive nature, patient benefits have been inconsistent. Perhaps robot-assisted cystectomy with intracorporeal urinary diversion is the answer we are looking for to reduce the morbidity of this procedure. Time will tell, but innovations like the intracorporeal “Y” neobladder are crucial to help advance the technique of robot-assisted cystectomy.

References

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