LETTER TO THE EDITOR

Advocating female genital-sparing cystectomy as the standard of care for women with bladder cancer

Re: "2025 Canadian Urological Association Guideline: Muscle-invasive bladder cancer" (*Can Urol Assoc J* 2025;19:E1-16)

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Cite as: Ismail A, Kotb A. Advocating female genital sparing cystectomy as the standard of care for women with bladder cancer. *Can Urol Assoc J* 2025;19(4):E138-9. http://dx.doi.org/10.5489/cuaj.9142

Traditionally, it has been widely accepted that anterior pelvic exenteration should be performed for women undergoing cystectomy for bladder cancer, removing the uterus, anterior vagina, fallopian tubes, and ovaries. This approach has historically been adopted due to concerns about oncologic safety and the perceived risk of genital organ involvement. In the 2025 CUA guideline on muscle-invasive bladder cancer, the removal of the female genital organs was still affirmed, with possible exceptions depending on the tumor location (anterior tumor).[1]

As someone who has performed this procedure on hundreds of patients, I can affirm its established role in the treatment protocol; however, over the last year, I have transitioned to performing female genital-sparing cystectomy in select cases, and I strongly believe that this approach warrants further consideration as a new guideline.

Female genital-sparing cystectomy has the potential to not only provide equal oncologic control but also maintain important aspects of quality of life for women, such as sexual health, emotional well-being, and body image, which can be profoundly affected by the loss of genital structures. A recent prospective study showed that all aspects of health-related quality of life improved 24 months post-surgery except for sexual function.[2] This highlights the need for additional strategies to address this aspect.

The incidence of genital organ invasion in bladder cancer remains relatively low, especially in patients with organ-confined diseases such as T2 bladder cancer. Studies showed that only 5% of women with combined T2/T3 bladder cancer showed involvement of genital organs, defined as the uterus or vagina, with no case of fallopian tubes or ovarian involvement.[3] Another study found that female genital organ removal was not an independent predictor for overall and progression-free survival after cystectomy.[4]

Magnetic resonance imaging (MRI) has proven to be a valuable imaging tool for preoperative staging in bladder cancer. Compared to other imaging modalities, it offers superior accuracy in evaluating muscle invasion (T2 vs. non-muscle-invasive cancer) and extravesical spread (T3/T4). Recent studies confirmed the high accuracy of MRI in predicting cancer invasion (staging) and cancer aggressiveness (high- vs. low-grade).[5]

As we move toward more personalized treatment strategies, integrating precision medicine is key. Precision medicine, which tailors treatment based on individual factors — including tumor biology, genetic makeup, and imaging findings — can help guide decision-making for female genital-sparing cystectomy. By considering factors like the tumor's location, stage, and molecular characteristics, we can identify patients who are more likely to benefit from organ preservation without compromising oncologic safety.

While more evidence is needed to fully support the long-term outcomes of female genital-sparing cystectomy, early results are promising. In my practice, I have seen improved recovery times, reduced complications, and enhanced quality of life for women who undergo this approach compared to traditional anterior pelvic exenteration. A recent study concluded that female genital organ-sparing even for advanced bladder cancer did not increase recurrence, progression, or overall survival, compared with traditional cystectomy.[6] Moreover, a multidisciplinary approach involving urologists, oncol-

ogists, radiologists, and psychologists is essential in determining which patients are suitable candidates for female genital-sparing cystectomy, ensuring that patient autonomy and informed decision-making remain central to the treatment process.

I believe that clinical practice guidelines should evolve to incorporate this technique, especially as we continue to accumulate data on its safety and outcomes. Preliminary criteria for female genital organ removal might include cases where tumor involvement in the genital organs is strongly suggested by imaging or intraoperative findings. We believe future recommendations should be towards preserving the female genital organs as the standard of care while stating criteria to allow the removal of these organs during cystectomy.

I urge colleagues and experts in the field to consider the value of preserving female genital structures during cystectomy, with the aim of improving both the functional and emotional well-being of female bladder cancer patients.

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