CT cystography for evaluation of bladder perforation—be safe and know the limitations—reply to Dr. Karmazyn

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Sir,

We welcome the insightful letter from Dr. Karmazyn [1] regarding his expertise with bladder augmentation, which echoes our own experience [2]. We agree with the use of a low pressure technique to distend the augmented bladder during fluoroscopic or CT cystography and we also advocate filling the augmented bladder via gravity by hanging contrast in a bag above the table rather than injecting contrast by hand. In many of our patients, though they lack bladder sensation, they or their families are aware of their typical bladder volume from intermittent self-catheterization and this amount can be used to estimate the maximum volume to be instilled. We agree that bladder filling should be discontinued if the child experiences any discomfort or pain.

We note with interest Dr. Karmazyn's reported sensitivity of 74% for CT cystography in the setting of aug-

mented bladder perforation. The reported sensitivity for CT cystography in the setting of traumatic bladder perforation is up to 100% [3]; however, in our own practice, we are aware of at least two patients with an augmented bladder in whom CT cystography was negative but laparoscopy confirmed sealed perforation. This highlights the need for a higher index of suspicion for perforation in patients with an augmented bladder. Even when imaging studies do not directly show a leak of contrast; unexplained fluid, pain, and/or fever in a patient with an augmented bladder are concerning for perforation and may warrant surgical exploration in the operating room.

Compliance with ethical standards

Conflicts of interest None

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