Bladder Outlet Obstruction Associated with Inguinal Bladder Hernia

Shiu-Dong Chung, M.D., Hsiao-Chun Chang, M.D., Pai-Feng Liu, M.D., Bin Chiu, M.D.

Division of Urology, Department of Surgery, Far Eastern Memorial Hospital, Taipei, Taiwan

BRIEF HISTORY

A 54-year-old man presented in the outpatient department with a six-month history of a weak urinary stream and urinary frequency. Two unique chief complaints were two-stage micturition and right lower abdominal pain while straining to void. The past history was unremarkable.

CLINICAL EXAMINATION

Physical examination revealed a mildly bulging right lower abdomen especially during a Vasalva maneuver. A digital rectal examination suggested a moderately enlarged prostate without palpable nodules, tenderness or heat. Urinalysis showed no hematuria or pyuria. The serum creatinine was 0.8 mg/dL.

CYSTOSCOPY

Urethrocystoscopy under intravenous general anesthesia revealed posterior urethral stricture and prostatic obstruction. No bladder tumor was identified in the whole bladder wall, which had moderate trabeculation. No definite diverticular-like structure or neck of a diverticulum was seen.

DIAGNOSIS AND MANAGEMENT

Bladder inguinal hernia is an uncommon condition; most bladder hernias are asymptomatic and identified incidentally during surgery or during imaging studies performed for other purposes [1]. Herein, we report a case with a unique but impressive presentation, which included lower urinary tract symptoms and a bulging mass with pain while voiding. In the outpatient department, a right inguinal bladder hernia was impressed, which was subsequently confirmed by computed tomography (CT). The CT scan showed a fluid-filled structure in the right inguinal canal and scrotum and revealed the partial bladder herniated into the right scrotum (Fig. 1). The patient underwent a right inguinal herniorrhaphy without complications. He voided well with alpha-blockade medication postoperatively.

The presentation of bladder herniation is variable and can be confusing. Patients might experience staged voiding. If the herniation is severe, they might need to compress the scrotum to complete voiding, with a decreased scrotal size after micturition [1].

Common nonspecific symptoms such as frequency, a weak stream, and intermittency (two-stage voiding) can also occur, as in our patient. Severe cases of bladder and ureteral herniation presenting with renal failure have been reported [2,3]. Several factors have been proposed to contribute to the development of bladder hernias, including urinary outlet obstruction causing chronic bladder distention, contact of the bladder with the hernia orifices, loss of bladder tone with weakness of the supporting structures, pericystitis, obesity, and pelvic masses [1].

In the literature, patients had good outcomes after standard inguinal hernia repair with or without mesh placement [3]. Bladder resection should only be considered if necrosis or a diverticulum is present, or there is urothelial carcinoma within the herniated portion of the bladder [4,5]. In our case, characteristic symptoms and CT images made it clear that the herniated bladder was caused by bladder outlet obstruction. It has been proposed that bladder outlet obstruction contributes to the formation of bladder hernias.

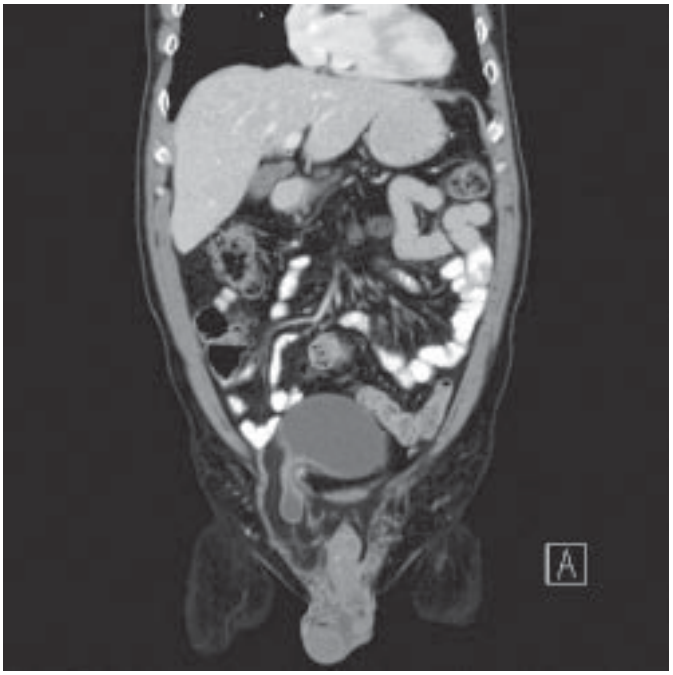

Fig. 1. CT scan shows the base of bladder extending inferiorly and toward the right side, and entering the right inguinal canal.

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Address correspondence to: Dr. Bin Chiu, Division of Urology, Department of Surgery, Far Eastern Memorial Hospital, 21, Section 2, Nan-Ya South Road, Pan-Chiao, Taipei, 22060, Taiwan
E-mail: femhuro@mail.femh.org.tw

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