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CASE IMAGE

Penile cavernosal abscess after urethral injury

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Key Clinical Message

We present a patient catheterized for prostatic lesions who developed sepsis of urinary origin with a penile cavernosal abscess due to urethral injury caused by catheter ballooning. Urethral injury might lead to a life-threatening penile abscess.

KEYWORDS

cavernosal abscess, sepsis, urinary catheter

1 | CASE

An 87-year-old man with type 2 diabetes mellitus who received an indwelling urinary catheter for prostate cancer and benign prostatic hyperplasia was referred for suspected sepsis. Physical assessment revealed positive right costovertebral angle tenderness. Laboratory tests showed increased levels of inflammatory markers (white blood cells, 12,980/μL; neutrophils, 89.0%; C-reactive protein, 33.88 mg/dL). Plain pelvic computed tomography (CT) revealed urethral injury caused by inflation of the indwelling urinary catheter balloon (Figure 1A). The catheter was immediately removed and then replaced. Blood and urinary cultures revealed antibiotic-susceptible *Escherichia coli*. Antibiotic therapy was commenced for sepsis of urinary origin. Though blood and urinary cultures became negative, the inflammatory condition was not ameliorated. Three weeks later, contrast-enhanced CT demonstrated an abscess formation in the penile corpus cavernosum (Figure 1B), along with pyogenic spondylitis at the L1/2 level. The patient underwent a debridement surgery for the cavernosal abscess, but 2 days later, he died of multi-organ failure due to refractory septic shock.

2 | DISCUSSION

A penile cavernosal abscess is a rare condition, which is reportedly caused by septic metastasis, intracavernous injection, sexual trauma, or perineal abscess extension.[1,2] *Staphylococcus aureus*, *Streptococci*, and *Bacteroides* species are the common causative organisms, while *Escherichia coli* is relatively uncommon.[1–3] Surgical incision and drainage are the first choice of treatment.[2,3] In the present case, the urethral obstruction due to prostate cancer and benign prostatic hyperplasia may have led to the urethral injury secondary to the catheter ballooning. Diabetes mellitus and prostate cancer might have been risks for the development of a penile cavernosal abscess with sepsis of urinary origin. Although such cases have

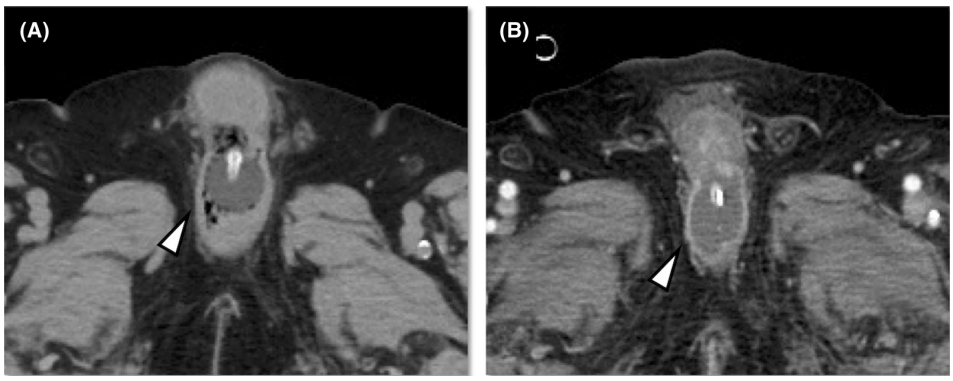

FIGURE 1 (A) Plain pelvic computed tomography showed penile injury due to inflation of a urinary catheter balloon (arrowhead). (B) Contrast-enhanced pelvic CT revealed a penile cavernosal abscess (arrowhead).

not been well documented in the literature, we should be aware of this iatrogenic fatal infection.

AUTHOR CONTRIBUTIONS

Koichiro Yamamoto: Conceptualization; investigation; writing – original draft. **Hiroyuki Honda:** Investigation; writing – review and editing. **Kou Hasegawa:** Writing – review and editing. **Hideharu Hagiya:** Writing – review and editing. **Fumio Otsuka:** Supervision; writing – review and editing.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

None.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

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