

GIANT SPONTANEOUS URINOMA DRAINING FROM THE SCROTAL WALL

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We report a unique case of spontaneous urinoma caused by a ureteral calculus that drained from a scrotal incision. Urinoma resolved after the insertion of a pigtail catheter.

CASE REPORT

An 18-year-old male presented elsewhere with right abdominal pain and swelling, right scrotal pain and fluid discharge from a scrotal wound. On physical examination the patient appeared unhealthy and the right abdomen was asymmetrically swollen with a firm nontender mass. A 3 cm. vertical incision was noted on the right scrotum as well as abundant discharge of clear fluid from this wound.

Abdominal discomfort and pain recurred 1 month later. A week later the right abdomen was enlarged, and the right scrotum became red, tender and swollen. The scrotum was incised elsewhere and the diagnosis was right scrotal abscess. The purulent discharge changed within days and large quantities of clear fluid began to drain from the scrotal incision. Simultaneously daily urine output decreased and abdominal swelling increased. The patient was referred to our institution.

Laboratory evaluation demonstrated a creatinine of 8.43 mg./dl. (normal 0.5 to 1.4), urea 251 mg./dl. (normal 10 to 50), erythrocyte sedimentation rate 110 mm. per hour and leukocyte count 18,400/mm.³ Urine output was about 100 cc/24 hours and urinalysis showed pyuria. Computerized tomography (CT) revealed an atrophic left kidney and right hydronephrosis with stones in the right kidney and ureter. An immense cystic mass probably originating from the right kidney occupied the right retroperitoneum and extended into the right scrotum through the inguinal canal (fig. 1). The differential diagnosis at this time was tuberculosis, hydatid disease, hydrocele en bisac and spontaneous urinoma.

Serological evaluation for tuberculosis and hydatid disease was negative. Radiopaque material was avoided due to high serum creatinine. The mass was punctured under ultrasound guidance, and cytological and biochemical studies were performed. The creatinine level of the fluid was 39.5 mg./dl.,

which was 5-fold that of the simultaneous serum level. Thus, the diagnosis of spontaneous urinoma was confirmed.

A double pigtail ureteral catheter was inserted on the right side. General condition improved within days, daily urine output increased, and blood urea and creatinine returned to normal. Drainage from the scrotal incision ceased and abdominal swelling disappeared 4 days after catheter insertion. Excretory urography on day 10 postoperatively showed a bifid pelvis and normal right kidney function, the double pigtail catheter in situ, and lower caliceal and mid ureteral stones. The urinoma was followed by CT. Complete resolution of the urinoma was noted on CT 4 months postoperatively (fig. 2). Stones were treated with extracorporeal shock wave lithotripsy followed by catheter removal. The patient was well and without complaints at 5-month followup.

DISCUSSION

Spontaneous urinary extravasation due to urinary calculi can be caused by frank rupture of the ureter or pelvis,¹ or fornix urinary backflow.² While frank rupture is a serious clinical situation that may potentially cause death by sepsis, the latter milder condition has been noted in 2% of excretory urograms with abdominal compression.² Self-limiting urinoma formation due to spontaneous urinary extravasation is rare. Anderson and Tanagho described subcapsular renal urinoma in a patient with gynecological malignancy treated with previous radiotherapy.³ To our knowledge our case is unique since it was caused by spontaneous extravasation due

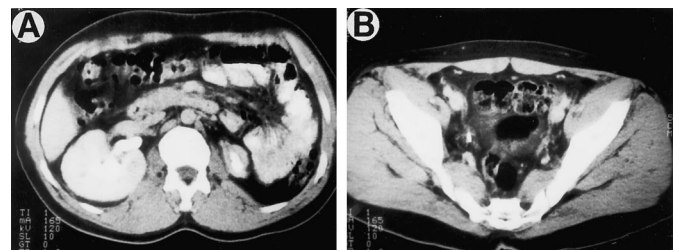


FIG. 2. A, abdominal CT 4 months after catheter insertion reveals complete resolution of urinoma. B, pelvic scan also shows complete resolution.

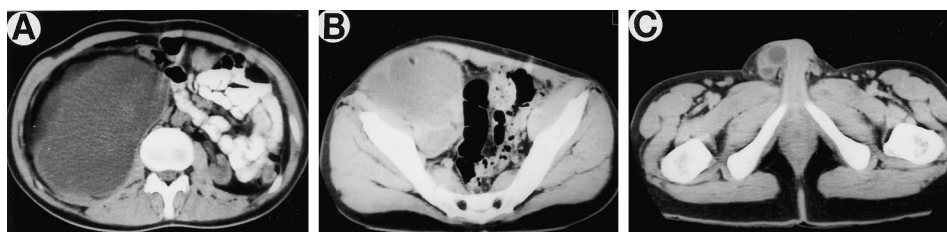


FIG. 1. A, giant cystic mass is present inferior to lower pole of right kidney. Left kidney is atrophic. B, pelvic scan shows mass extending down into pelvic cavity, causing marked abdominal wall asymmetry. C, cyst enters scrotal cavity through inguinal canal.

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to a benign condition. In addition, the urinoma not only filled the entire right retroperitoneal space, but also extended into the right hemiscrotum through the inguinal canal. What is even more interesting is that the urinoma drained from the scrotal incision used to treat the concurrent scrotal abscess. Our case is also striking because it demonstrates how a minimally invasive procedure may at times relieve a complex and bothersome clinical condition.

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