

Unusual cause of chronic ascites

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CASE REPORT

A 28-year-old lady had a laparoscopic right ovarian cyst puncture for primary infertility. On the fourth postoperative day she developed progressive abdominal distension, becoming massive by the 12th day and necessitating large volume therapeutic paracentesis. Her bowel movements and urine output were normal. Haemogram and biochemical renal and liver parameters were normal. Chest X-ray, ECG and echocardiogram were normal. Sonography of the abdomen and computed tomography revealed massive ascites. Ascitic fluid colour was straw coloured, with 10 to 15 polymorphs, protein 120 g/l and amylase 0.3 µg/l.

The present admission was for rapid reaccumulation of ascites and repeated therapeutic paracentesis. On examination, she was afebrile with mild pallor. Vital signs were stable. Abdominal examination revealed tense ascites. Other systems were normal. Haemogram and liver function tests were normal. Serum creatinine was 130 µmol/l. Ultrasonography of the abdomen and computed tomography (*figure 1*) were performed. Ascitic fluid was transudate with a creatinine level of 590 µmol/l.

Figure 1. CT abdomen shows ascites



WHAT IS YOUR DIAGNOSIS?

See page 180 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (ON PAGE 175)
UNUSUAL CAUSE OF CHRONIC ASCITES

The computed tomography (CT) (*figure 1*) shows massive ascites with hydronephrosis of the right kidney and intravenous urogram (*figure 2*) shows the spillage of

urine into the peritoneal cavity. The patient has urinary ascites (post-traumatic), confirmed by an elevated level of creatinine in the ascitic fluid.

Figure 1. CT abdomen shows ascites

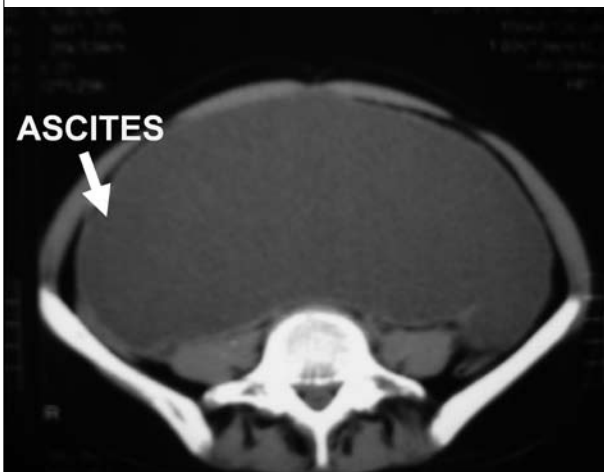


Figure 2. IVU shows rightsided hydrouretronephrosis with extravasation of contrast into the peritoneal cavity



Urine leaks and urinomas result from disruption of the urinary collecting system at any level from the calyx to the urethra and can accumulate within or outside the peritoneal cavity respectively. The former is referred to as urinary ascites. The leakage is often post-traumatic, either iatrogenic or after a blunt or a penetrating injury to the lower abdomen.^{1,2} Iatrogenic injury to the urinary collecting system can occur during laparoscopic colectomy and gynaecological practice.³ Urinary ascites manifests as peritonitis within two to three days or is at times delayed in the absence of peritonitis. Contrast-enhanced helical CT is diagnostic for suspected leaks from the kidney and ureter. Retrograde CT cystography confirms an intraperitoneal rupture of bladder. Ultrasound may not be informative. A diagnostic intraperitoneal fluid aspiration and elevated creatinine levels is a complementary diagnostic tool. Intravenous pyelogram and renal scintigraphy have a limited role in the diagnosis of urinary ascites. Surgical repair is treatment of choice.

In the present case, intravenous urogram (*figure 2*) confirmed the spillage of urine into the peritoneal cavity. Percutaneous nephrostomy and ureteric stenting had failed. Through a modified Gibson's incision, a thin-walled cavity 3 x 3 cm in size was seen near the right lower ureter, which was communicating with the peritoneal cavity. The ureter was transected at this level and a Boari's flap taken from urinary bladder was used for reconstruction. Postoperatively there was no reaccumulation of ascites.

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