

Case	(317) Large iatrogenic urinoma
Authors	G. De Paco Tudela, M. Ato Gonzalez, A. Navarro Baño, P. Rey Segovia, D. Gea Martos, A. Castillo García.
Centre	Hcuva

## CASE PRESENTATION

A 55 year old women with a history of hypertension who presented with diffuse abdominal pain.

She had a pheochromocytoma removal surgery 1 month before, without immediate complications. At admission, patient showed diffuse abdominal pain, especially in hypogastrium and left flank, refractory to habitual analgesia, and absence of bowel movements for 4 days, without nausea or vomits.

The patient arrived tachycardic with leukocytosis. A contrast-enhanced two phase abdominal CT with portal and excretory phases was performed, showing a left ureter leakage (Figure 1.C , arrow) into a large fluid collection in left retroperitoneum that pushes anteriorly the kidney and extends to the subcutaneous cellular tissue contacting with the skin. It shows wall contrast enhancement (Figure 1.B, arrow).

This findings are suggestive of infected urinoma. The following day the collection was drained and a nephrostomy was performed. The following week it was surgically repaired.

## DISCUSSION

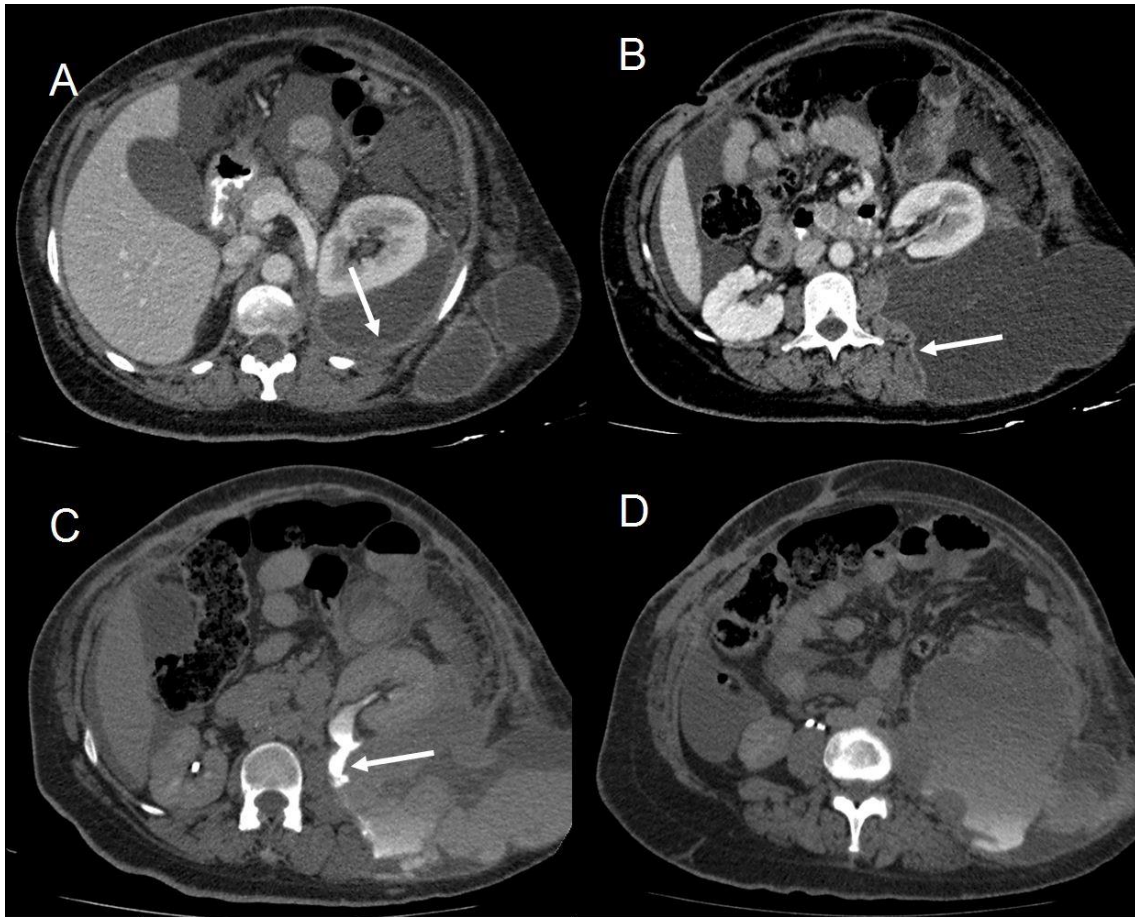
Urinoma is a rare pathology that consist of urine collections that are usually found in the retroperitoneum, oftenly in the perirenal space. The urine leakage can be secondary to obstruction of the urinary tract, trauma or iatrogenic post-surgery lesion of the urinary tract.

The clinical presentation is inespecific, e.g abdominal pain, hematuria, or fever in case it's infected. If the patient has been surgically operated, especially a urologic intervention, the diagnostic of yatrogenic urinoma must be taken into consideration. A contrast enhanced CT must be performed, always including an excretory phase in order to discover urinary extravasation.

Small perirenal urinomas can be treated conservatively, but in case of large size, hydronephrosis, fever, compression or demonstration of urinary tract lesion, prompt surgical repair must be performed in order to prevent complications as abscess, hydronephrosis or loss of renal function.

## CONCLUSION

Urinoma must be suspected when a patient with trauma or recent surgery presents abdominal pain. CT must be performed, always including an excretory or delayed phase in order to demonstrate urinary extravasation.



**A and B.** Contrast enhanced CT (portal phase). Large fluid collection in left retroperitoneum that contacts with skin. Wall enhancement (arrows).  
**C and D.** Contrast enhanced CT (excretory phase). Left ureteral leakage into collection (arrow). Contrast extravasation is evidenced.

## BIBLIOGRAPHY

- Yang DM, Jung DH, Kim H, Kang JH, Kim SH, Kim JH, Hwang HY: Retroperitoneal cystic masses: CT, clinical, and pathologic findings and literature review. *Radiographics*. 2003, 24: 1353-1365.
- Jou YC, Shen CH, Cheng MC, Lin CT, Chen PC. Bilateral ureteral complete obstruction with huge spontaneous urinoma formation in a patient with advanced bladder cancer. *J Chin Med Assoc*. 2012 Feb;75(2):84-6.
- Phillips B, Holzmer S, Turco L, Mirzaie M, Mause E, Mause A, Person A, Leslie SW, Cornell DL, Wagner M, Bertellotti R, Asensio JA. Trauma to the bladder and ureter: a review of diagnosis, management, and prognosis. *Eur J Trauma Emerg Surg*. 2017 Dec;43(6):763-773.
- Tifton RL, Gervais DA, Hahn PF, Harisinghani MG, Arellano RS, Mueller PR. Urine leaks and urinomas: diagnosis and imaging-guided intervention. *Radiographics*. 2003 Sep/Oct;23(5):1133-47.

