the preservation of testicular parenchyma and hormone function, and also contribute to reduce late complications such as chronic pain, testicle atrophy and ultimately also the indication of orchiectomy.

In the absence of signs of severity, medical treatment with periodic monitoring may be justified. However, in the presence of suspect clinical manifestations or doubtful ultrasound findings, most authors recommend exploratory surgery.[5]

In the absence of hematocele, large intratesticular hematoma or rupture of the tunica albuginea, medical treatment consists of rest, the administration of antiinflammatory drugs, and testicle suspension.[6]

REFERENCES

1. Buckley JC, McAninch JW. Diagnosis and management of testicular ruptures. Urol Clin North Am. 2006;33:111-6.
2. Andipa E, Liberopoulos K, Asvestis C. Magnetic resonance imaging and ultrasound evaluation of penile and testicular masses. World J Urol. 2004;22:382-91.
3. Pavlica P, Barozzi L. Imaging of the acute scrotum. Eur Radiol. 2001;11:220-8.
4. Deurdulian C, Mittelstaedt CA, Chong WK, Fielding JR. US of acute scrotal trauma: optimal technique,imaging findings, and management. Radiographics. 2007;27:357-69.
5. Buckley JC, McAninch JW. Use of ultrasonography for the diagnosis of testicular injuries in blunt scrotal trauma. J Urol. 2006;175:175-8.
6. Chandra RV, Dowling RJ, Ulubasoglu M, Haxhimolla H, Costello AJ. Rational approach to diagnosis and management of blunt scrotal trauma. Urology. 2007;70:230-4.

E. Tolosa-Eizaguirre[a,*], J.E. Robles-García[a], J. Lorente-Pérez[b], and A. Rincón-Mayans[a]

[a]*Department of Urology, Clínica Universidad de Navarra, Pamplona, Navarre, Spain*
[b]*Department of Urology, Clínica San Miguel, Pamplona, Navarre, Spain*

**Corresponding author.*
E-mail: etolosaei@unav.es (E. Tolosa Eizaguirre).

Prenatal hydronephrosis due to congenital ureteral valves

Hidronefrosis prenatal secundaria a válvulas ureterales

Dear Editor,

Ureteral valves are a rare cause of upper urinary tract obstruction. Since they were first described by Wolfler in 1877, very few cases have been reported in the medical literature,[1] and in isolated cases they have been diagnosed prior to surgery.[2] In the case described in our study, suspicion arose before birth, when ureteral valves were considered in the differential diagnosis of antenatal hydronephrosis.

We present the case of a four-month-old boy showing severe right renal hydronephrosis and dilatation of the upper third of the ureter at control prenatal ultrasound exploration. The urine sediment and urine culture findings were normal. The diagnosis of hydronephrosis was confirmed at ultrasound exploration performed 15 days after birth. Hydronephrosis was ratified by intravenous urography (fig. 1) and diuretic renography (DTPA-Tc99m/furosemide), which showed diminished function and delayed drainage of the affected kidney. Cystourethrography discarded the presence of vesicoureteral reflux.

Percutaneous anterograde pyelography (fig. 2) confirmed and precisely located the stricture in the proximal ureter, suggesting the diagnosis of ureteral valve.

In view of the severe hydronephrosis, surgery was decided. Dilatation was observed of the proximal third of the right ureter; as a result, a 2-cm length of ureter was removed, covering the extent of the different-caliber zone, followed by end-to-end ureteroureteral anastomosis. Histological examination of the resected ureteral segment revealed the presence of transverse fibers of ureteral mucosa, containing smooth muscle bundles.

One month after surgery, control examination through the percutaneous nephrostomy revealed restenosis of the ureter at the level of the ureteroureteral anastomosis. The restenosis was subjected to pneumatic dilatation, with a satisfactory outcome. Three years later, diuretic renography (DTPA-Tc99m/furosemide) showed complete resolution of the hydronephrosis, without obstruction.

Congenital ureteral stenosis and ureteral valves are the main causes of congenital ureteral obstruction.[3] Ureteral valve embryogenesis remains unclear, and three

Figure 1 – Intravenous urography: Right renal hydroureteronephrosis.

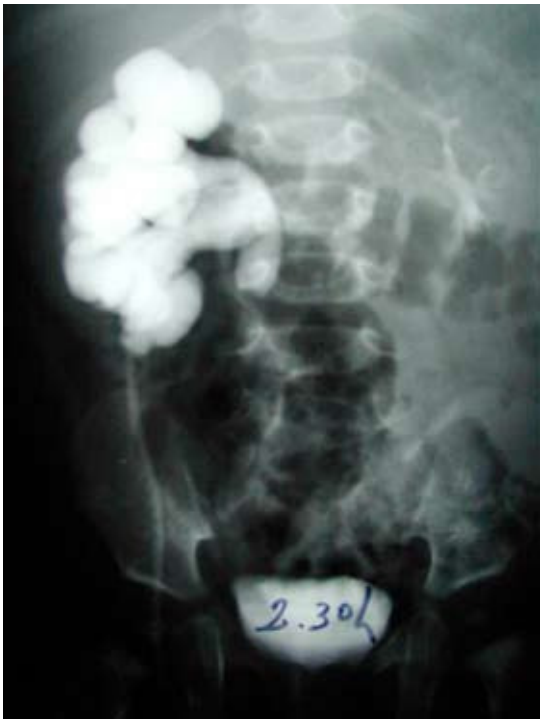

Figure 2 – Percutaneous anterograde pyelography: right proximal ureteral and pyelocaliceal dilatation.

theories have been proposed to explain their presence: (a) persistence of the Chwalla membrane; (b) the presence of physiological folds in the ureteral lumen; and (c) anomalous ureteral embryogenesis. Ureteral valves can be found in any segment of the ureter, and affect both the left and the right ureter equally – with no reported gender predilection.

Urinary tract anomalies has been correlated with 45% of all cases of upper third ureteral valves and with 39% of all lower and middle third ureteral valves. In this context, ureteral valves have been associated to complete and incomplete renal duplications, ectopic ureter, vesicoureteral reflux, and horseshoe kidney. They have also been related to disorders such as renal lithiasis (in 17% of cases) and arterial hypertension (in 14% of cases).[1,4]

Preoperative anterograde pyelography for the diagnosis of this disorder has been little used, since in most cases the diagnosis is established by diuretic renography and/or retrograde pyelography.[5] Many cases are discovered during surgery or at necropsy. Ours constitutes one of the few cases diagnosed preoperatively by anterograde pyelography, with histological confirmation. The information provided by this imaging technique is often crucial for patient management, as it can confirm the nature of the lesion and its precise location.

The differential diagnosis of ureteral valves is difficult to establish. The conditions to be considered are fundamentally non-obstructive fetal folds, obstruction of the pelvic-ureteral junction, distal ureteral stenosis, vesicoureteral reflux, and primary megaureter.[3] Ureteral valves are characteristically composed of transverse folds of muscle fibers covered by urothelial mucosa, while congenital stenoses involve narrowing of the lumen without structural changes of the mucosa.[1] On the other hand, primary megaureter normally only involves ureteral dilatation.

Undoubtedly, early diagnosis and treatment of ureteral obstructions are crucial for preserving kidney function. Surgery involves removal of the segment containing the valve, followed by end-to-end anastomosis. However, minimally invasive techniques such as endoscopic treatment, with laser excisions or ablations of the ureteral valve, have yielded good results.[6,7] In our case, the use of a minimally invasive approach in the form of pneumatic dilatation successfully resolved the postoperative restenosis, thus avoiding both the need for second surgery and the increased morbidity associated with repeat intervention.[8]

REFERENCES

1. Rabinowitz R, Kingston TE, Wesselhoeft C, Caldamone AA. Ureteral valves in children. Urology. 1998;51:7-11.
2. Tartari F, Bezhani E, Rota T, Subashi S, Shehu M, Harito F, et al. Ureteral valves associated with ureteral stricture. Report of 4 cases. Eur Urol. 1998;33:412-3.
3. Cauchi JA, Chandran H. Congenital ureteric strictures: An uncommon cause of antenatally detected hydronephrosis. Pediatr Surg Int. 2005;21:566-8.
4. Rossi E, Salas J, Aucatoma F, Muñoz M, Fochs L. Congenital ureteral valves: Two new cases and a review of the literature. J Pediatr Urol. 2007;3:344-9.
5. Tlili-Graies K, Allègue M, Kraiem C, Ben Romdhane MH, Bakir D, Laarif M, et al. Ureteral valves: Report of a case diagnosed by anterograde pyelography. Pediatr Radiol. 1988;19:67-9.
6. Nishio S, Hamada H, Yokoyama M. Endoscopic incision for the treatment of a ureteric valve. BJU Int. 1999;83:1081-2.
7. Singh SK, Wadhwa P. Ablation of diaphragmatic annular ureteral valve with holmium laser. Int Urol Nephrol. 2006;38:157-9.
8. Martí Malet J, Lopez Llauradó H, Izquierdo de la Torre F. Ureteral stenosis and pneumatic dilatation. Arch Esp Urol. 2001;54: 627-36.

L. Delgado-Plasencia[a,*], N. Hernández-Siverio[b], and D. Castro-Díaz[b]

[a]*Department of General and Digestive Surgery, Hospital Universitario de Canarias, Canary Islands, Spain*
[b]*Department of Urology and Pediatric Urology, Hospital Universitario de Canarias, Canary Islands, Spain*

**Corresponding author.*
E-mail: lucianodelgado1@gmail.com, luciano_delgado1@yahoo.es (L. Delgado-Plasencia).

Methroragies as form of presentation of a ovary metastases from a primary renal cell carcinoma

Metrorragias como forma de presentación de un carcinoma de células renales con metástasis ovárica

Dear Editor,

We present the case of a 52-year-old woman consulting due to repeated metrorrhagic episodes associated to general syndrome in the form of asthenia and anorexia. The examination yielded no findings of note other than hemorrhagic remains at vaginal exploration. Vaginal ultrasound showed the presence of a solid cystic mass dependent upon the left adnexal elements – posteriorly confirmed by computed tomography (CT) (fig. 1) – with a small amount of free intraperitoneal fluid. CT also revealed the presence of a solid mass measuring 6.5 × 6.5 cm in size, dependent upon the lower pole of the right kidney (fig. 2), as well as multiple nodules in the upper pole. Right radical nephrectomy was performed, together with hysterectomy and bilateral oophorectomy. The histological report on the renal piece indicated Fuhrman grade III clear cell carcinoma without invasion of the renal capsule, while the right ovary presented renal clear cell carcinoma metastasis.

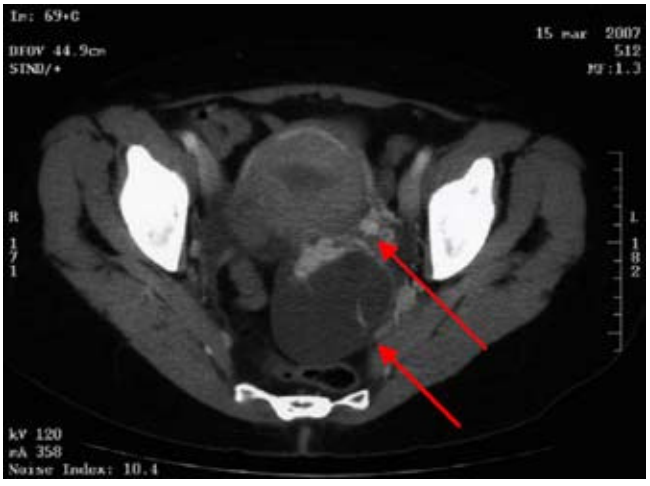

Figure 1 – Computed tomography scan. Solid cystic component of the adnexal mass (arrow).

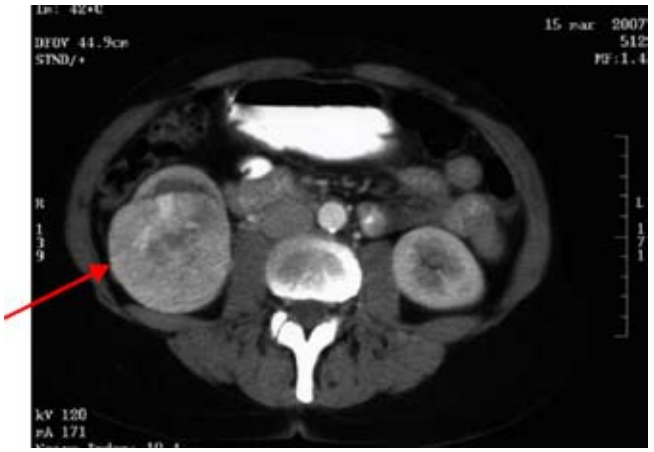

Figure 2 – Computed tomography scan. Complex mass measuring 65 × 65 mm in size, dependent upon the lower pole of the right kidney (arrow).

Ovarian metastasis of renal clear cell adenocarcinoma is extremely rare. The lesions are often mistaken for primary clear cell tumors of the ovary. Approximately one-third of all patients with a *de novo* diagnosis of renal carcinoma present metastatic disease.[1] On the other hand, close to one-half of the patients subjected to nephrectomy with healing intent develop distant metastatic disease over follow-up.[2,3] Of these metastases, 70% are limited to a single organ – generally the lung (40%) or bone (22%) – with single metastatic lesions in 2.3% of the cases.[4] With only 12 cases published in the last 20 years, metastatic invasion of the ovary from a primary renal tumor is extremely rare, though metastatic involvement of a renal carcinoma must be included in the differential diagnosis of ovarian tumors presenting clear cell histological characteristics.[5]