Inguinoscrotal ureteral hernia in patient with severe prostatism: a case report and literature review

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ABSTRACT

Inguinoscrotal ureteral hernia is an extremely rare pathology and there are very few reports on it in the international literature. The present case is a 69-year-old man with severe prostatism and hematuria. He was studied radiographically and incidental diagnosis of left inguinoscrotal hernia was made. He underwent retropubic prostatectomy, retroperitoneal inguinal hernioplasty, ureteral reduction and left double-J catheter placement. Postoperative progression at 18-month follow-up is good.

Key words: inguinoscrotal ureteral hernia, Mexico.

RESUMEN

Las hernias ureterales inguino-escrotales son una entidad patológica sumamente rara, con pocos reportes en la literatura internacional. El presente caso a continuación trata de un masculino de 69 años con prostatismo severo y hematuria; estudiado radiográficamente y con diagnóstico incidental de hernia inguino-escrotal izquierda. Fue sometido a prostatectomía retropúbica, hernioplastia inguinal retroperitoneal, reducción ureteral y colocación de catéter JJ izquierdo, con buena evolución posoperatoria y seguimiento a 18 meses.

Palabras clave: Hernia ureteral inguino-escrotal, México.
INTRODUCTION

Ureteral hernias are a rare pathology. Diagnosis is usually incidental whether from intraoperative finding or from different contrasted imaging studies. The following is a case of left paraperitoneal inguinoscrotal hernia and benign prostatic hyperplasia with severe lower urinary tract obstruction and macroscopic hematuria. The problem was surgically resolved and there was follow-up at one and a half years after the operation.

CLINICAL CASE

Patient is a 69-year-old man presenting with chronic severe lower urinary tract obstruction with transurethral catheter for urinary retention associated with macroscopic hematuria and obesity. Patient drinks and smokes on occasion. Significant medical history includes high blood pressure and congestive heart failure treated with captopril and furosemide and a left inguinoscrotal hernia of 20-year progression.

Patient presented with prostatism and hematuria for which kidney ultrasound was carried out that revealed signs of left renal ectasia and severe ureteral dilatation. Excretory urography showed the presence of inguinoscrotal ureteral hernia, megaureter, hydronephrosis and left renal ptosis (Images 1 and 2). Patient underwent open inguinal hernioplasty through midline infraumbilical and transvesical incision. In the same surgery the large hernial sac containing left paraperitoneal ureter was reduced; the peritoneal sac included the small intestine and colon. Ureterotomy of the lower third segment was performed to place a double-J catheter (Image 3) and transvesical prostatectomy and inguinal hernioplasty with the Nyhus technique without prosthetic material were carried out. Postoperative progression was satisfactory and double-J catheter was removed 6 weeks later. At eighteen months from surgery the patient was asymptomatic and excretory urogram was done (Image 4) that revealed left ureteral involution, hydronephrosis remission and renal ptosis reversion.

Image 1. Renal ptosis, hydronephrosis and left and hydroureter.

Image 2. Left inguinoscrotal ureteral hernia.

Image 3. Immediate postoperative image with left double-J catheter.

Image 4. Image 18 months after operation.
Inguinal ureteral hernias are rare with only 140 cases presently reported in the literature.

Two types of ureteral hernias are described: paraperitoneal and extraperitoneal. Extraperitoneal ureteral hernias are a rare congenital variant described as a hernial sac that contains the ureter and retroperitoneal fat. Paraperitoneal ureteral hernias may include only the ureter or there may be other abdominal organs contained in the hernial sac. The patient described here presented with a hernial sac containing small intestine that coalesced into the megaureter.

Excretory urography as a screening study for hematuria clearly exposed the megaureter and hernia sizes and the so-called curlicue sign, a radiographic sign of a spiraled ureter. Renal ptosis is usually another sign concurrent with this pathology and was also apparent in the contrasted study of the patient discussed here. Postoperative control excretory urography at 18 months showed apparent reversion of renal ptosis to a normal position as well as simultaneous ureteral involution. Once free from obstruction and traction the ureter recovered its normal size and position.

After hernioplasty and prostatectomy, prostatism symptoms and macroscopic hematuria went into remission. It is not known whether lower urinary tract symptoms, as occurs with bladder inguinal hernias, are a risk factor for developing ureteral hernias. However, it is known that obesity is a risk factor associated with this pathology. Other reports indicate the association of extrinsic defects of the bladder wall and ureter associated with bladder floor elevation due to increased prostate gland volume.

After surgical correction of the hernial defect and the consequent relief of obstruction and weight on the ureter, it was apparent that the urothelium had the capacity to revert to its original size, showing involution to its normal shape and anatomical position without the need to surgically correct redundant tissue. This case provides support for diagnostic criteria, pathological signs and risk factors involved in the study of ureteral hernias.

BIBLIOGRAPHY